

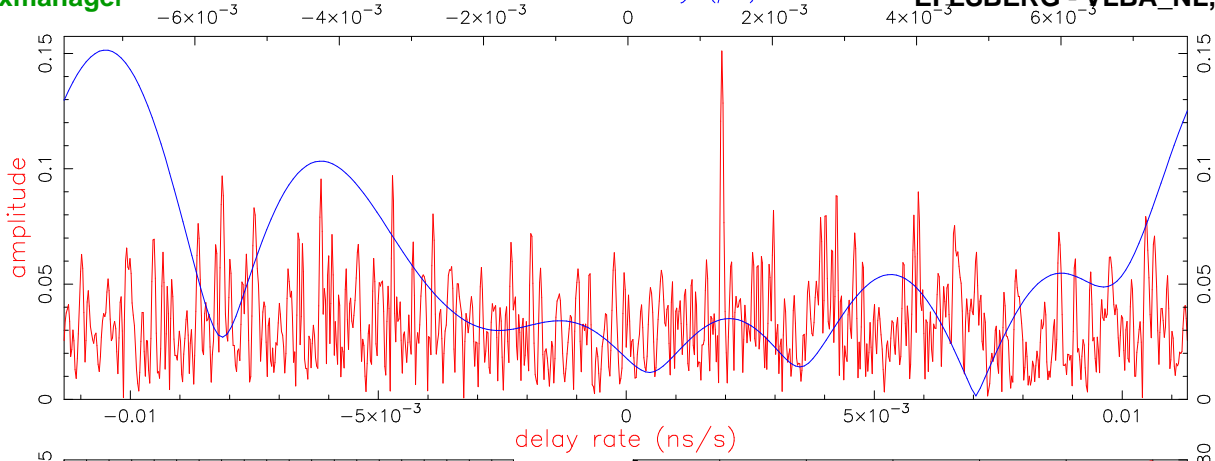
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

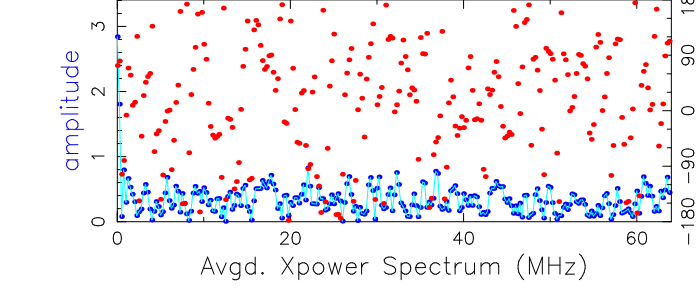
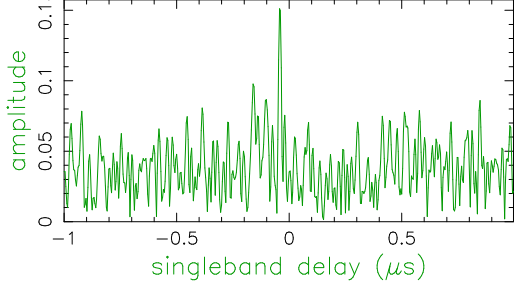
0102+584.1HROB9, No0122, Bn

EFLSBERG - VLBA_NL, fgroup W, pol RR

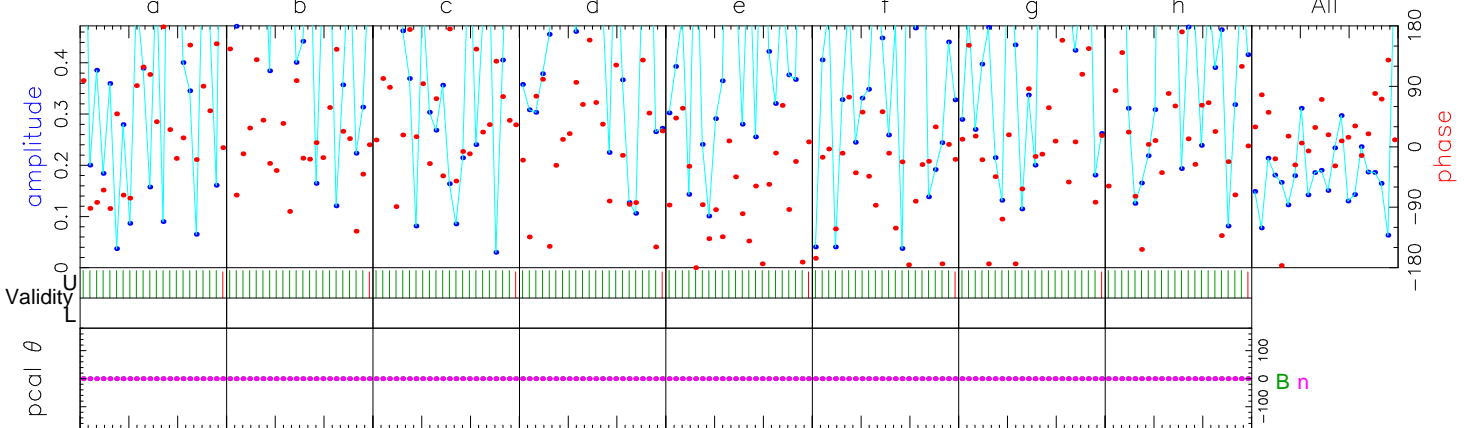
multiband delay (μ s)



Fringe quality 0
 SNR 5.7
 Int time 179.778
 Amp 0.157
 Phase 18.8
 PFD 7.6e-01
 Delays (us)
 SBD -0.041148
 MBD -0.007164
 Fringe rate (Hz) 0.165761
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140359
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.98115582398E+03									
Sband delay (usec)	-7.98115855814E+03									
Phase delay (usec)	-7.98111740928E+03									
Delay rate (us/s)	4.50299392746E-01									
Total phase (deg)			-228.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
ion window (TEC)										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

B: az 352.8 el 19.6 pa 8.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -4894.604 7267.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn.W.22.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

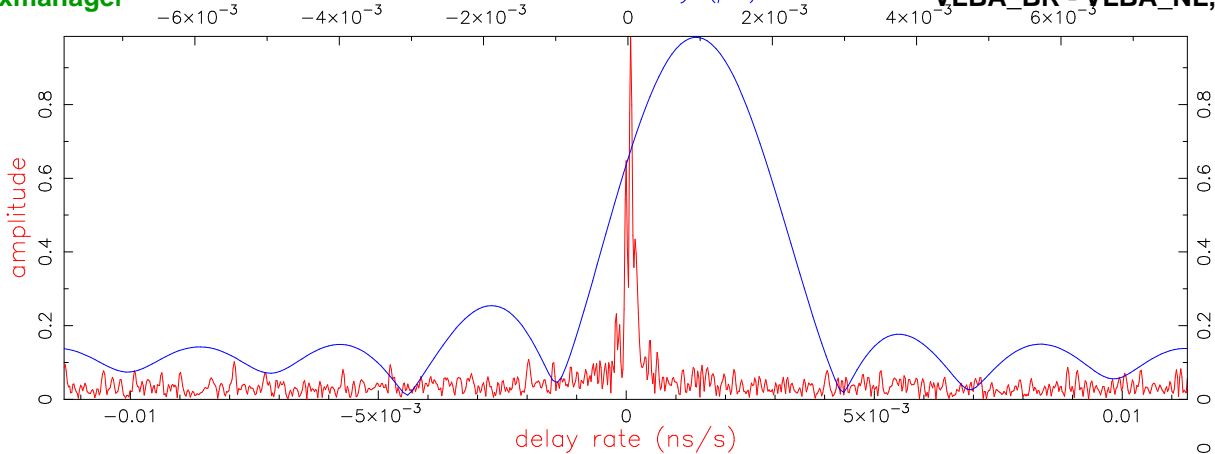
fxmanager

0102+584.1HROB9, No0122, bn

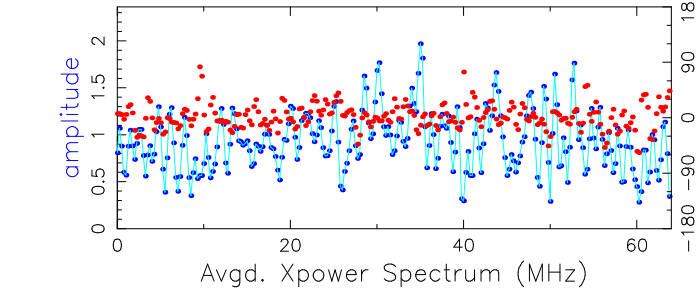
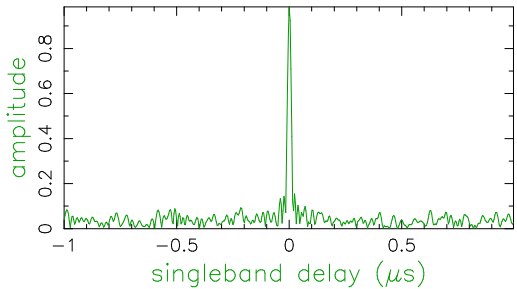
VLBA_BR - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

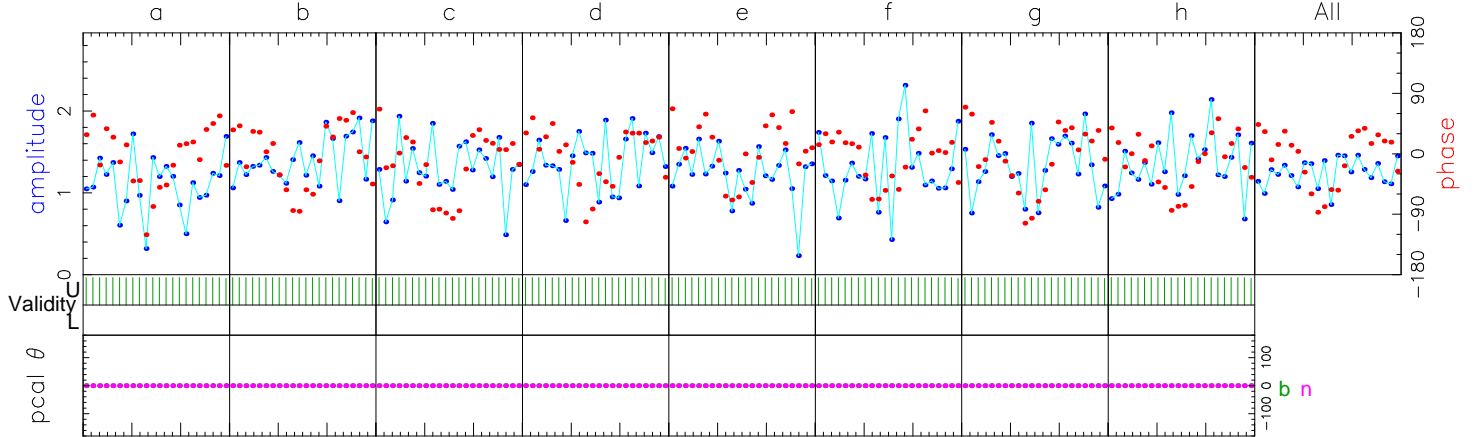


SNR 36.1
 Int time 179.974
 Amp 0.985
 Phase -2.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.000661
 MBD 0.000958
 Fringe rate (Hz) 0.007421
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140359
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.3	0.4	-12.3	-0.3	10.6	-6.2	4.0	-11.2	Phase	-2.2
	0.9	1.0	0.9	1.1	1.0	1.1	0.9	1.1	Ampl.	1.0
	257.4	257.3	256.9	257.1	257.9	256.8	257.1	257.0	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.05238048654E+03		Apriori delay (usec)		4.05237952819E+03		Resid mbdelay (usec)		9.58355E-04	+/- 3.0E-05
Sband delay (usec)	4.05238018944E+03		Apriori clock (usec)		-1.8437443E+00		Resid sbdelay (usec)		6.61250E-04	+/- 2.4E-04
Phase delay (usec)	4.05237952812E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-7.23073E-08	+/- 1.0E-07
Delay rate (us/s)	2.11049395662E-01		Apriori rate (us/s)		2.11049309509E-01		Resid rate (us/s)		6.61535E-08	+/- 9.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.39960422076E-05		Resid phase (deg)		-2.2	+/- 3.2

ph/seg (deg) 39.3 7.4 Search (1024X32) 0.978 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 31.3 13.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.3 4.5 Inc. seg. avg. 1.237 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.3 7.8 Inc. frq. avg. 0.987 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 308.9 el 64.3 pa 95.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -2326.013 -1420.741 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/bn.W.30.1HROB9

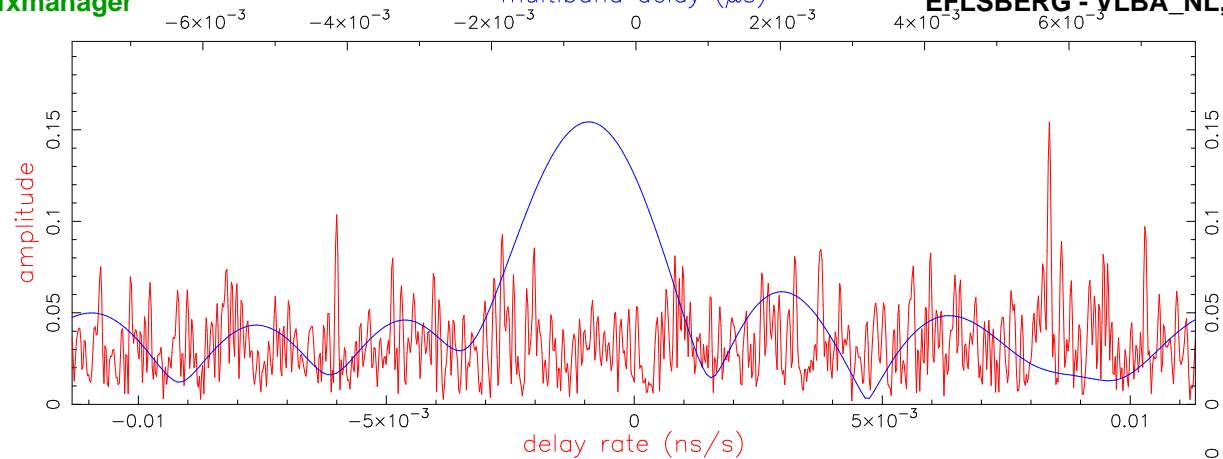
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, Bn

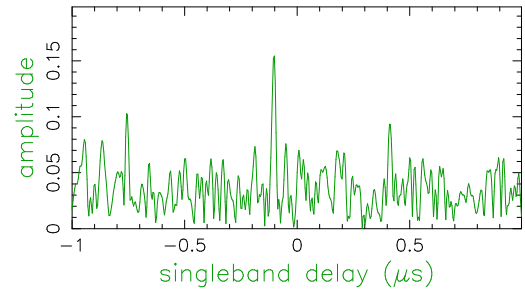
EFLSBERG - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

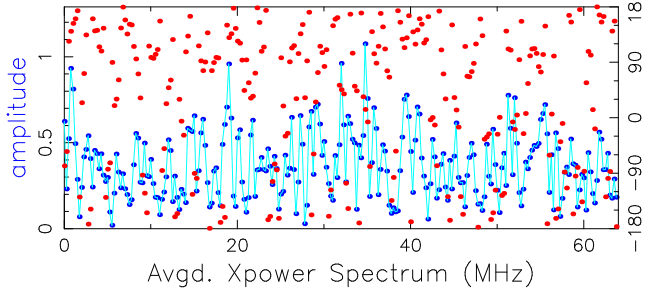


Fringe quality 0

SNR 5.7
 Int time 179.778
 Amp 0.198
 Phase 27.1
 PFD 6.9e-01
 Delays (us)
 SBD -0.103153
 MBD -0.000680
 Fringe rate (Hz)
 0.722733
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

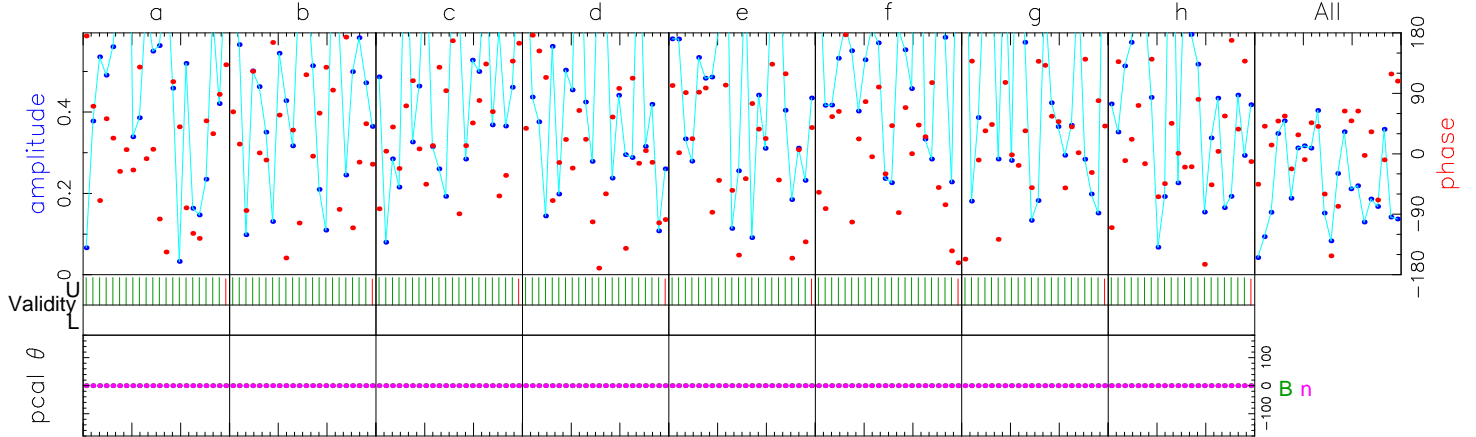


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140400
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



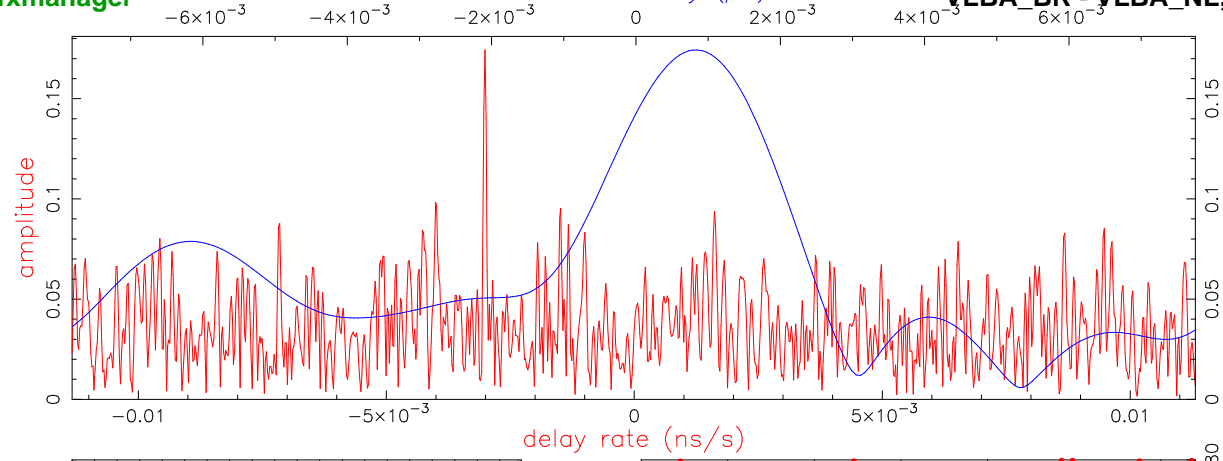
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	375.9	228.1	304.5	262.5	457.4	198.3	228.3	230.8		
B	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.98122746507E+03					-7.98111740989E+03			-6.80183E-04	+/- 1.9E-04
Sband delay (usec)	-7.98122056289E+03					9.9873571E+00			-1.03153E-01	+/- 1.5E-03
Phase delay (usec)	-7.98111740902E+03					-7.0000001E-07			8.74165E-07	+/- 6.4E-07
Delay rate (us/s)	4.50305858635E-01					4.50297468420E-01			8.39022E-06	+/- 6.2E-09
Total phase (deg)			-220.5			5.26810627993E-05			27.1	+/- 20.0
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 64.4 46.8
 amp/seg (%) 79.5 81.7
 ph/frq (deg) 22.1 28.2
 amp/frq (%) 29.1 49.3

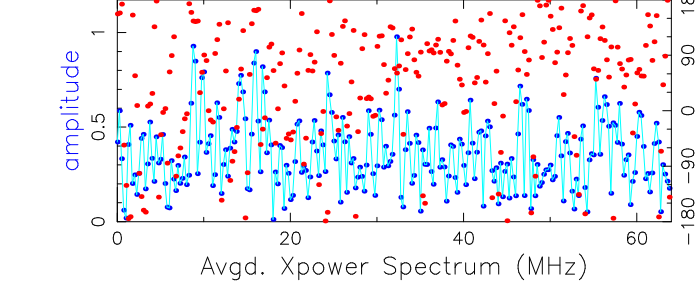
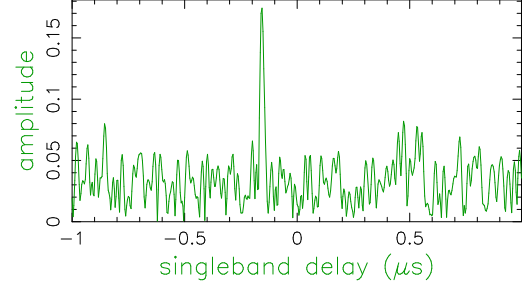
B: az 352.8 el 19.6 pa 8.9
 n: az 316.3 el 45.3 pa 80.8
 u,v (fr/asec) -4894.604 7267.058

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn.W.37.1HROB9

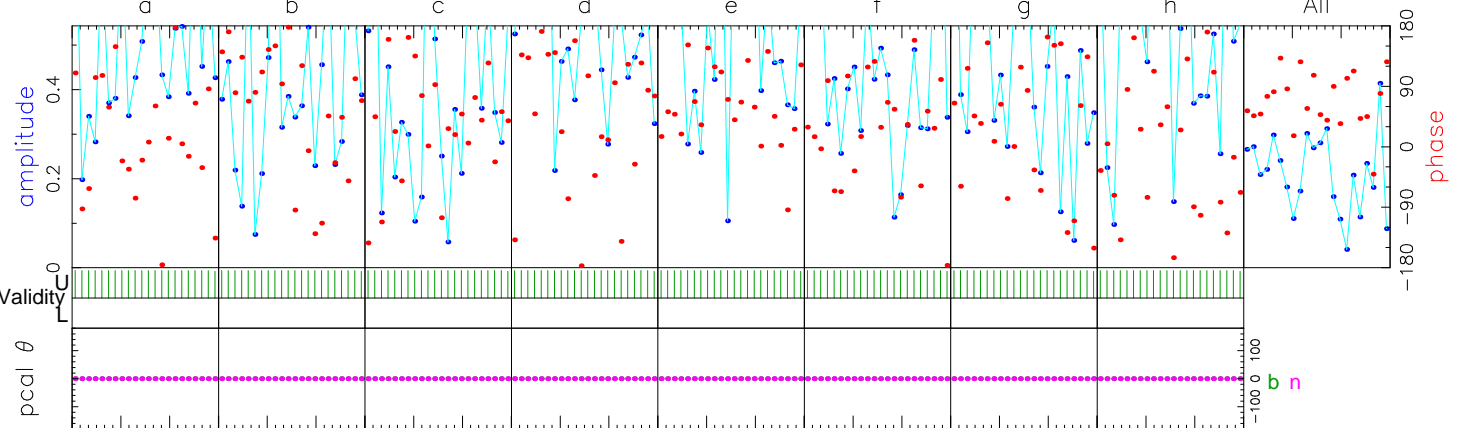
multiband delay (μ s)



Fringe quality 0
SNR 6.5
Int time 179.974
Amp 0.181
Phase 69.1
PFD 1.5e-02
Delays (us)
SBD -0.157595
MBD 0.000827
Fringe rate (Hz)
-0.259540
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140401
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	4.05222410550E+03		Apriori delay (usec)		4.05237952819E+03		Resid mbdelay (usec)		8.27310E-04	+/- 1.7E-04
Sband delay (usec)	4.05222193344E+03		Apriori clock (usec)		-1.8437443E+00		Resid sbdelay (usec)		-1.57595E-01	+/- 1.3E-03
Phase delay (usec)	4.05237953042E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		2.22722E-06	+/- 5.7E-07
Delay rate (us/s)	2.11046296512E-01		Apriori rate (us/s)		2.11049309509E-01		Resid rate (us/s)		-3.01300E-06	+/- 5.5E-09
Total phase (deg)	270.0		Apriori accel (us/s/s)		-1.39960422076E-05		Resid phase (deg)		69.1	+/- 17.8
ph/seg (deg)	RMS 40.4	Theor. 41.7	Amplitude 0.181 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	53.4	72.7	Search (1024X32) 0.172		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	32.3	25.1	Inc. seg. avg. 0.174		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		dr window (ns/s)	-0.011 0.011
amp/frq (%)	53.8	43.8	Inc. frq. avg. 0.183		nlags: 256		t_cohere infinite		ion window (TEC)	0.00 0.00

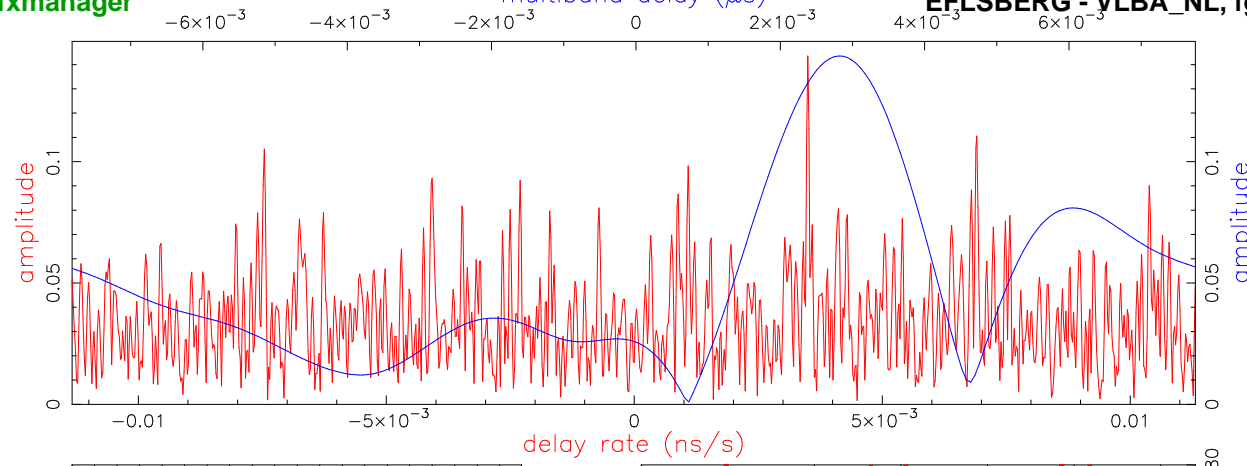
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

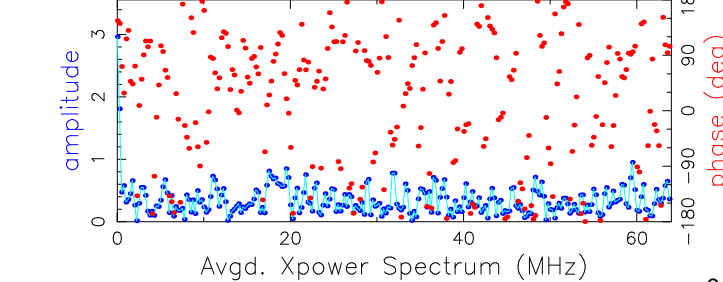
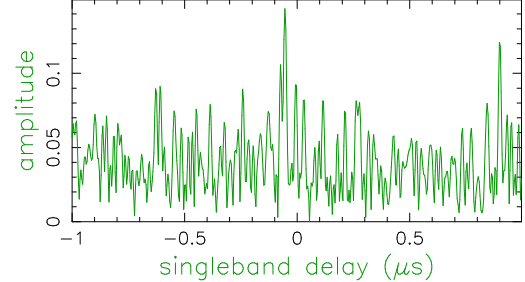
0102+584.1HROB9, No0122, Bn

EFLSBERG - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

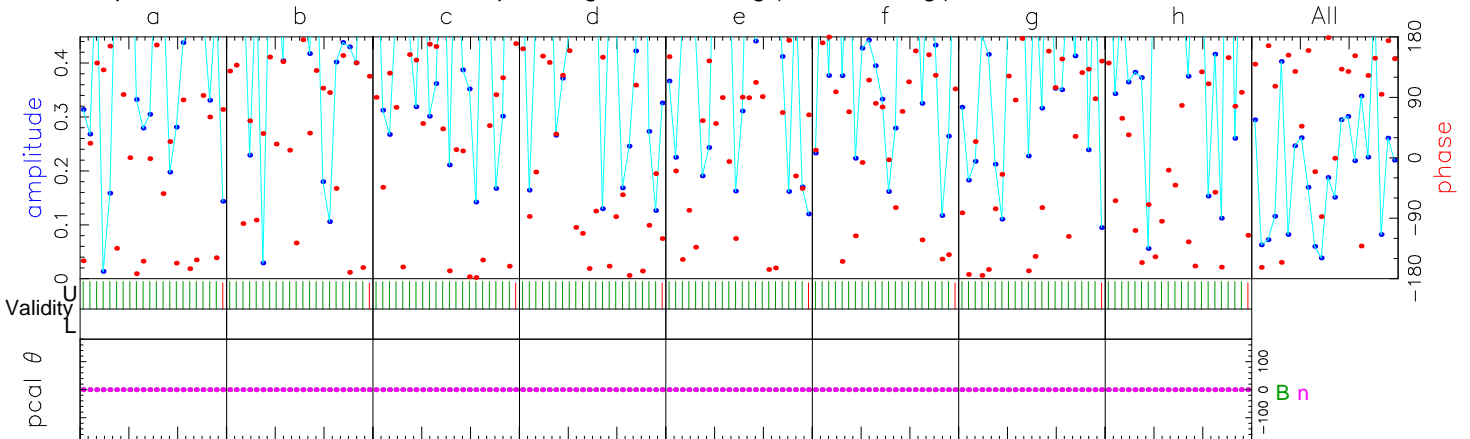


Fringe quality 0
 SNR 5.3
 Int time 179.778
 Amp 0.150
 Phase 150.6
 PFD 1.0e+00
 Delays (us)
 SBD -0.054245
 MBD 0.002844
 Fringe rate (Hz) 0.301362
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140403
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	159.6	149.0	130.6	-157.9	101.2	119.1	154.8	178.4	Phase	150.6
B	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.1	Ampl.	0.1
n	256.6	471.2	35.6	28.0	208.2	240.8	465.5	444.9	Sbd box	243.1
B:n	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B:n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.98117706605E+03		Apriori delay (usec)	-7.9811740989E+03	Resid mbdelay (usec)	2.84384E-03	+/-	2.1E-04		
Sband delay (usec)	-7.98117165464E+03		Apriori clock (usec)	9.9873571E+00	Resid sbdelay (usec)	-5.42447E-02	+/-	1.6E-03		
Phase delay (usec)	-7.9811740503E+03		Apriori clockrate (us/s)	-7.0000001E-07	Resid phdelay (usec)	4.85653E-06	+/-	7.0E-07		
Delay rate (us/s)	4.50300966935E-01		Apriori rate (us/s)	4.50297468420E-01	Resid rate (us/s)	3.49851E-06	+/-	6.7E-09		
Total phase (deg)		-97.0	Apriori accel (us/s/s)	5.26810627993E-05	Resid phase (deg)	150.6	+/-	21.7		

ph/seg (deg) 66.8 51.0 Search (1024X32) 0.142 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 95.4 89.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.0 30.7 Inc. seg. avg. 0.156 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.9 53.7 Inc. frq. avg. 0.150 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 352.8 el 19.6 pa 8.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -4894.604 7267.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn.W.61.1HROB9

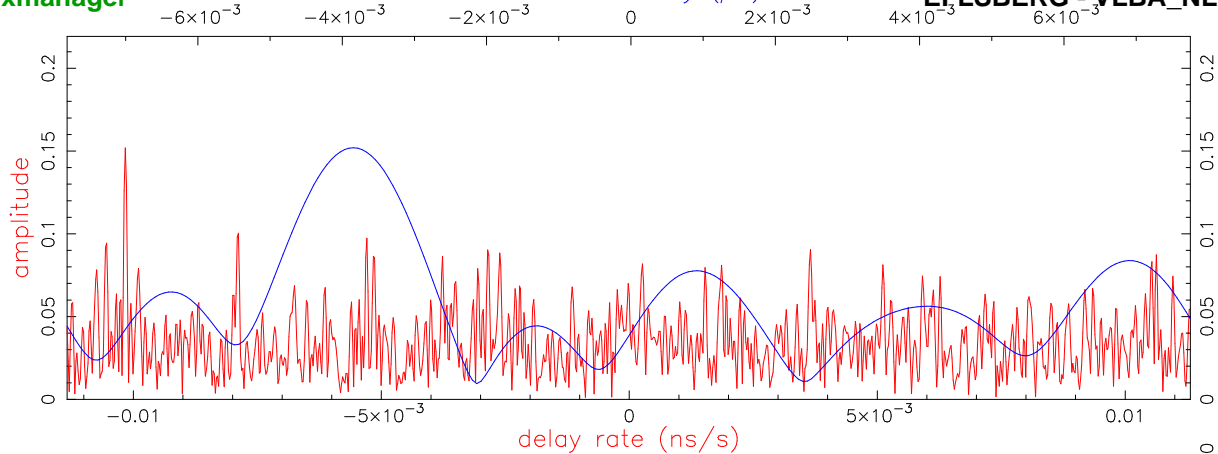
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, Bn

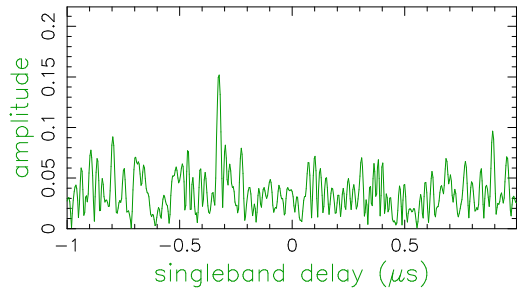
EFLSBERG - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

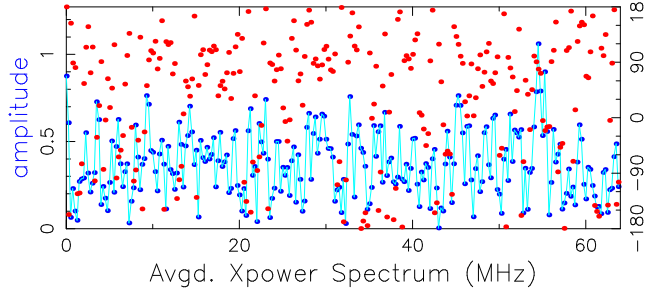


Fringe quality 0

SNR 5.6
 Int time 179.778
 Amp 0.219
 Phase -10.5
 PFD 8.9e-01
 Delays (us)
 SBD -0.325737
 MBD -0.003888
 Fringe rate (Hz)
 -0.876082
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

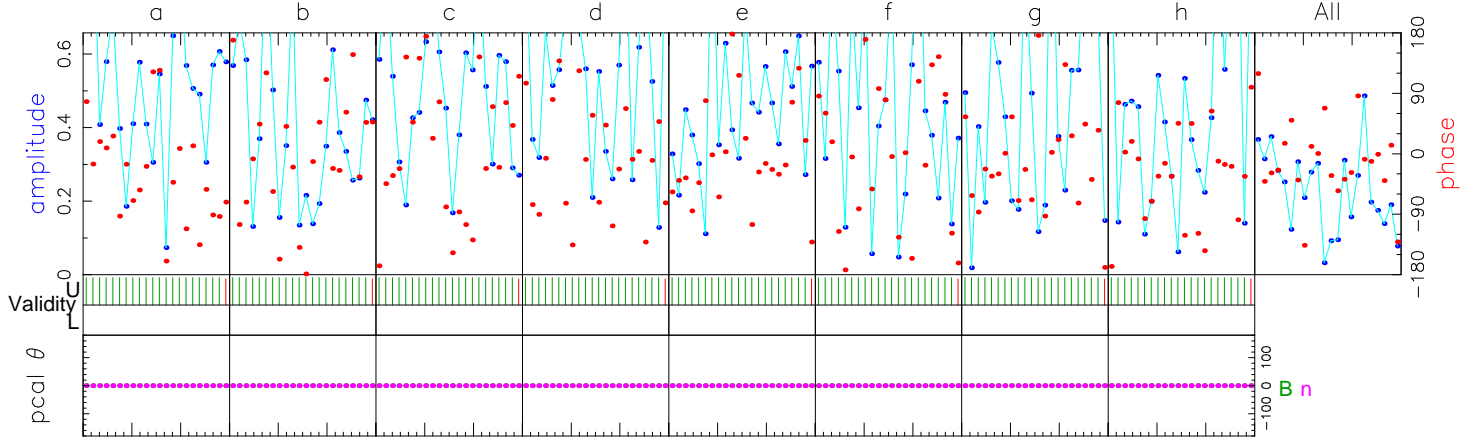


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140357
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-24.9	8.6	0.2	-17.0	-17.9	79.6	-9.4	-25.3	Phase	-10.5
	0.4	0.1	0.1	0.2	0.3	0.2	0.4	0.3	Ampl.	0.2
	296.1	31.3	357.2	215.4	52.8	13.9	486.7	350.7	Sbd box	173.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.98144942259E+03		Apriori delay (usec)		-7.98111740989E+03		Resid mbdelay (usec)		-3.88770E-03 +/- 1.9E-04	
Sband delay (usec)	-7.98144314714E+03		Apriori clock (usec)		9.9873571E+00		Resid sbdelay (usec)		-3.25737E-01 +/- 1.5E-03	
Phase delay (usec)	-7.98111741023E+03		Apriori clockrate (us/s)		-7.0000001E-07		Resid phdelay (usec)		-3.39616E-07 +/- 6.6E-07	
Delay rate (us/s)	4.50287297971E-01		Apriori rate (us/s)		4.50297468420E-01		Resid rate (us/s)		-1.01704E-05 +/- 6.3E-09	
Total phase (deg)			Apriori accel (us/s/s)		5.26810627993E-05		Resid phase (deg)		-10.5 +/- 20.3	

	RMS	Theor.	Amplitude	0.219 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.1	47.7	Search (1024X32)	0.148	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	87.2	83.3	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	39.0	28.8	Inc. seg. avg.	0.243	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	54.7	50.2	Inc. frq. avg.	0.213					

B: az 352.8 el 19.6 pa 8.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -4894.604 7267.058 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Bn.W.6.1HROB9

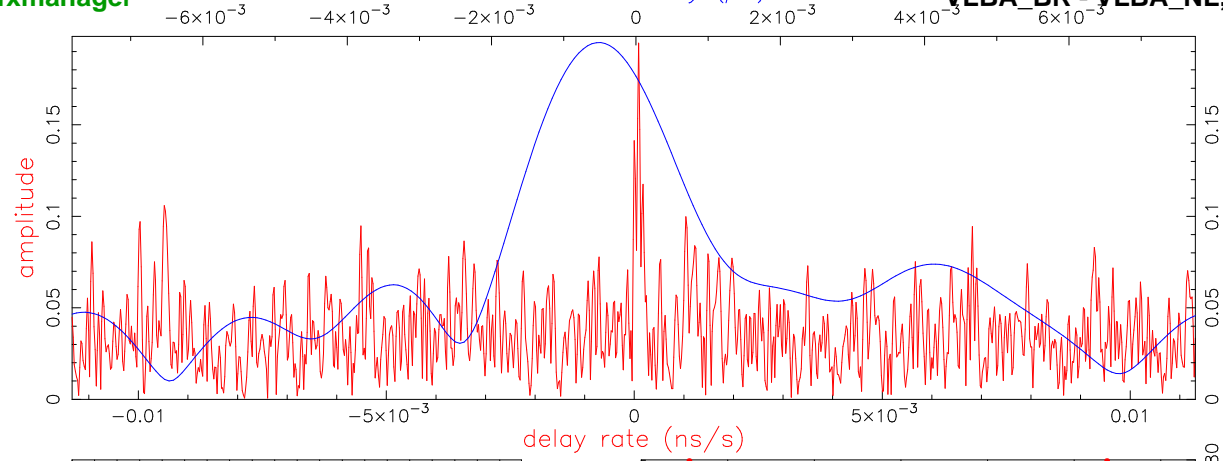
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

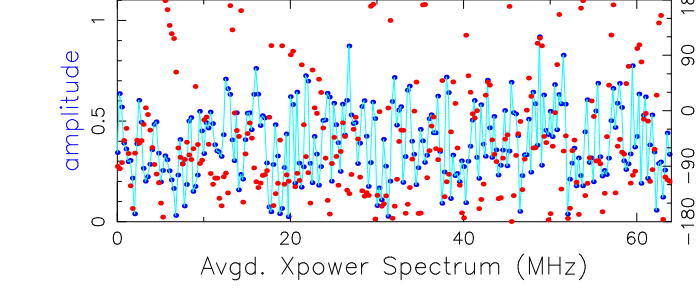
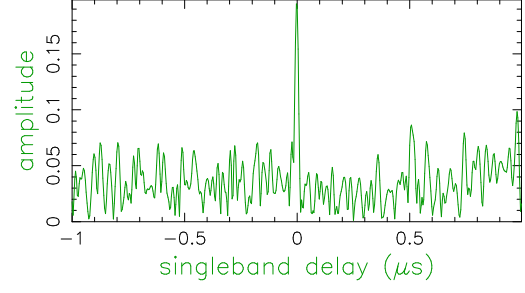
0102+584.1HROB9, No0122, bn

VLBA_BR - VLBA_NL, fgroup W, pol RL

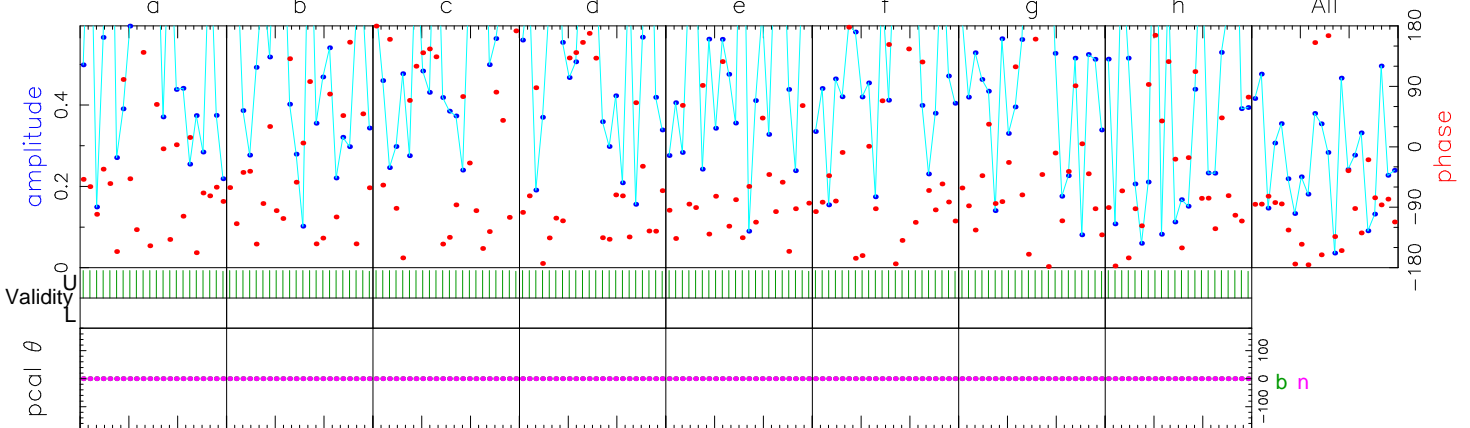
multiband delay (μ s)



Fringe quality 9
 SNR 7.3
 Int time 179.974
 Amp 0.198
 Phase -114.0
 PFD 5.4e-05
 Delays (us)
 SBD -0.002214
 MBD -0.000445
 Fringe rate (Hz) 0.007241
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140403
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.4	-94.9	-168.7	-139.3	-96.6	-126.4	-89.1	-116.4	Phase	-114.0
	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.1	Ampl.	0.2
	480.0	268.0	503.5	255.1	257.3	302.7	387.5	455.4	Sbd box	256.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.05237908298E+03		Apriori delay (usec)		4.05237952819E+03		Resid mbdelay (usec)		-4.45208E-04	+/- 1.5E-04
Sband delay (usec)	4.05237731394E+03		Apriori clock (usec)		-1.8437443E+00		Resid sbdelay (usec)		-2.21425E-03	+/- 1.2E-03
Phase delay (usec)	4.05237952451E+03		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-3.67704E-06	+/- 5.1E-07
Delay rate (us/s)	2.11049393565E-01		Apriori rate (us/s)		2.11049309509E-01		Resid rate (us/s)		8.40562E-08	+/- 4.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.39960422076E-05		Resid phase (deg)		-114.0	+/- 15.8

	RMS	Theor.	Amplitude	0.198 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.6	36.9	Search (1024X32)	0.192	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	73.3	64.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	32.5	22.3	Inc. seg. avg.	0.226	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	31.1	38.9	Inc. frq. avg.	0.206	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 308.9 el 64.3 pa 95.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -2326.013 -1420.741 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/bn.W.68.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

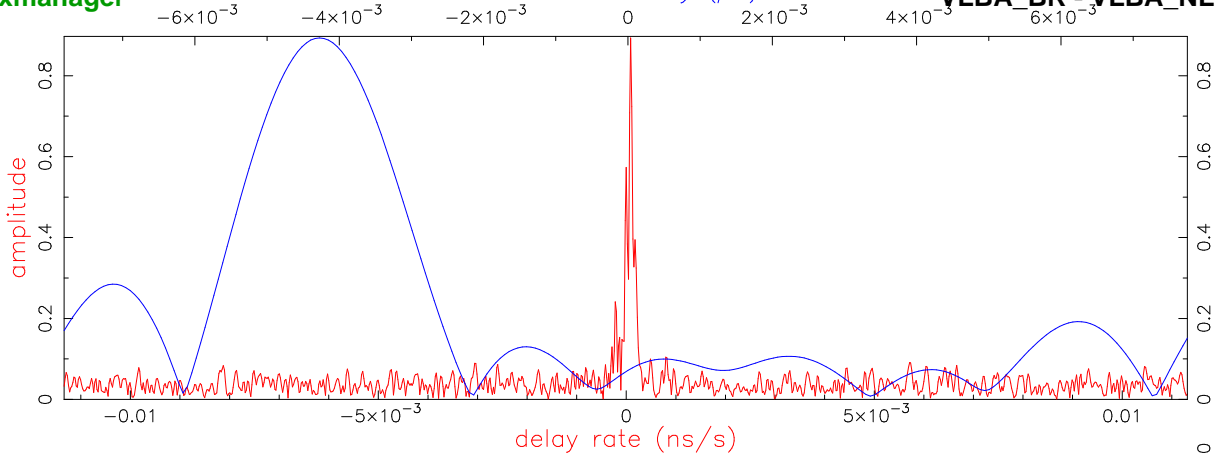
fxmanager

0102+584.1HROB9, No0122, bn

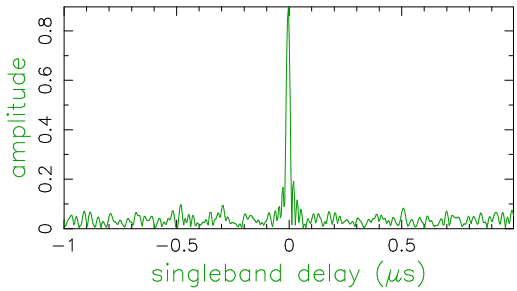
VLBA_BR - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

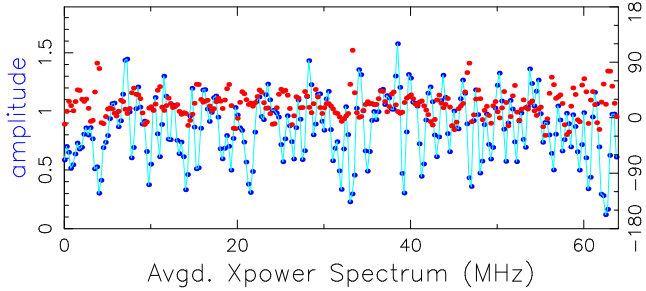
Fringe quality 8



SNR 32.9
 Int time 179.974
 Amp 0.897
 Phase 14.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.004736
 MBD -0.004292
 Fringe rate (Hz) 0.007431
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

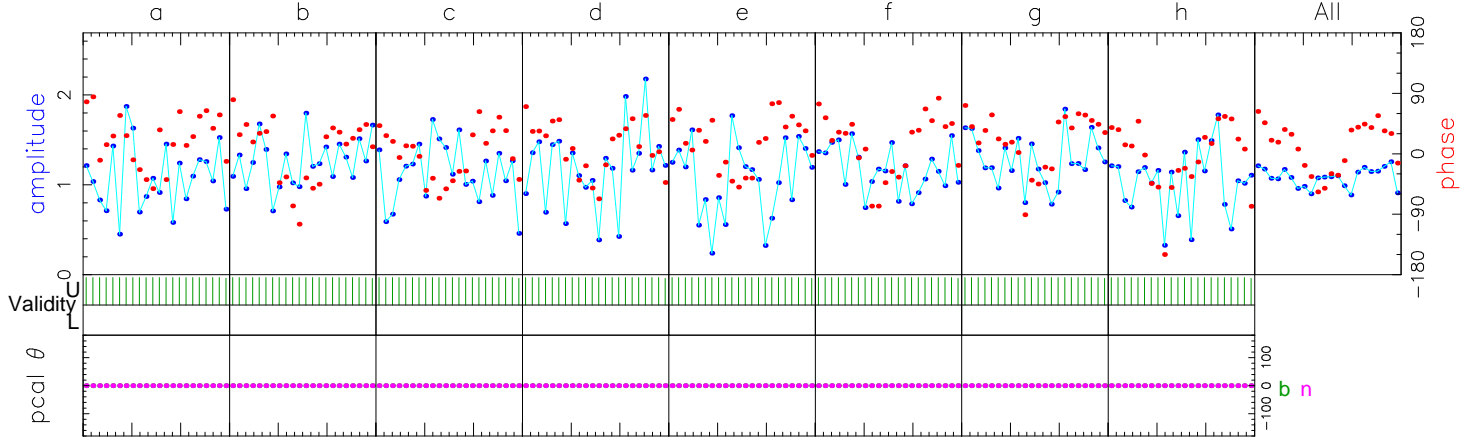


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140357
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
b	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
b	1000	1000	1000	1000	1000	1000	1000	1000			
n	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		4.05237523664E+03			4.05237952819E+03						
Sband delay (usec)		4.05237479219E+03			-1.8437443E+00						
Phase delay (usec)		4.05237952866E+03			-5.0000000E-07						
Delay rate (us/s)		2.11049395770E-01			2.11049309509E-01						
Total phase (deg)			215.6		-1.39960422076E-05						
				Apriori delay (usec)					Resid mbdelay (usec)	-4.29155E-03	+/- 3.3E-05
				Apriori clock (usec)					Resid sbdelay (usec)	-4.73600E-03	+/- 2.6E-04
				Apriori clockrate (us/s)					Resid phdelay (usec)	4.72623E-07	+/- 1.1E-07
				Apriori rate (us/s)					Resid rate (us/s)	8.62612E-08	+/- 1.1E-09
				Apriori accel (us/s/s)					Resid phase (deg)	14.7	+/- 3.5
									PCal mode: MANUAL, MANUAL		
									PCal rate: 0.000E+00, 0.000E+00 (us/s)		
									SampCntNorm: enabled		
									Sample rate(MISamp/s): 128		
									Data rate(Mb/s): 2048		
									nlags: 256 t_cohere infinite		
									ion window (TEC)	0.00	0.00
									sb window (us)	-1.000	1.000
									mb window (us)	-0.008	0.008
									dr window (ns/s)	-0.011	0.011

b: az 308.9 el 64.3 pa 95.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -2326.013 -1420.741 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/bn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/bn.W.7.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

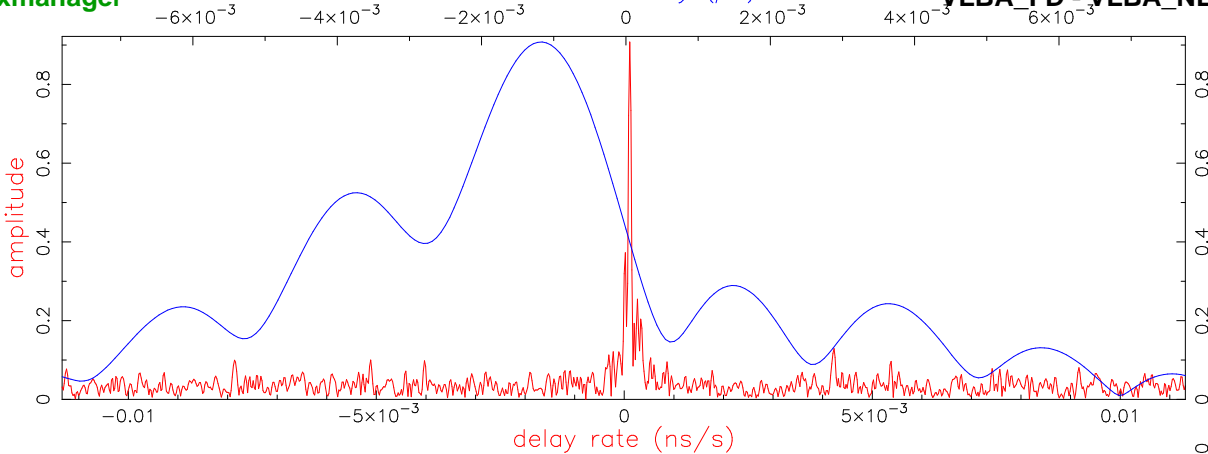
fxmanager

0102+584.1HROB9, No0122, fn

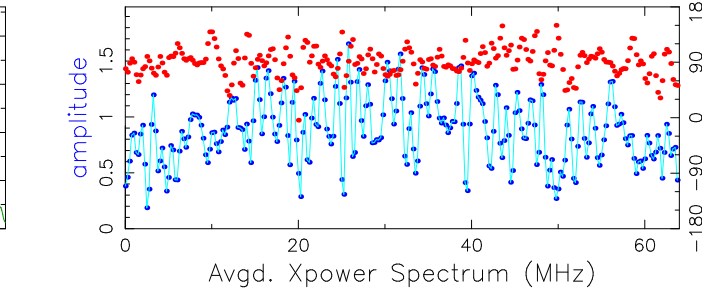
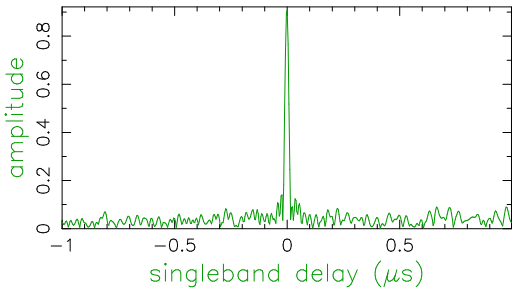
VLBA_FD - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 6

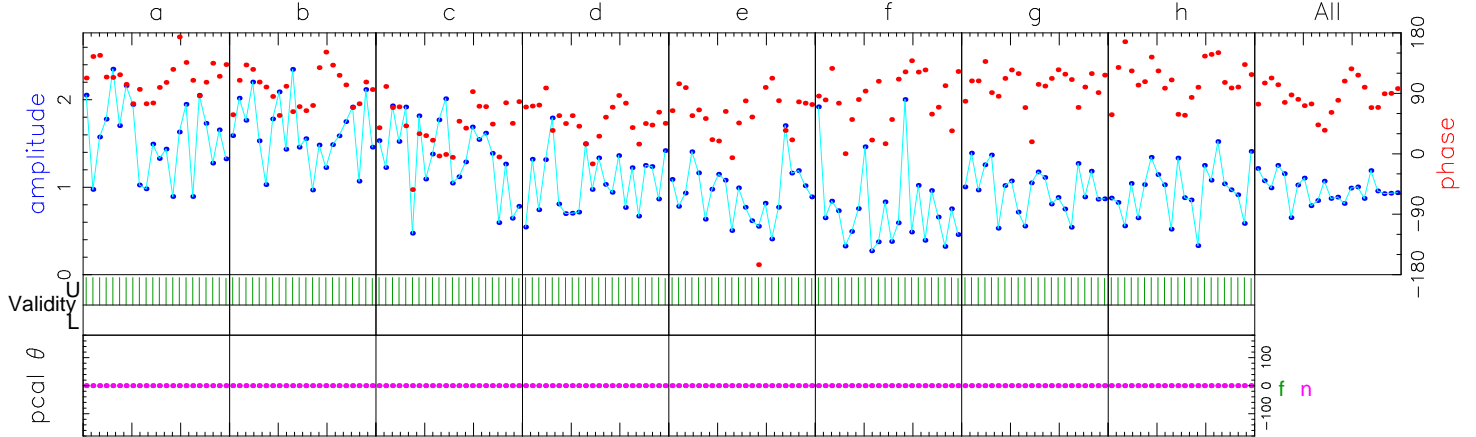


SNR 33.8
Int time 179.979
Amp 0.922
Phase 85.0
PFD 0.0e+00
Delays (us)
SBD -0.001634
MBD -0.001197
Fringe rate (Hz) 0.009976
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build 2021:006:220611
2021:010:140408
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		256.6
f	1000	1000	1000	1000	1000	1000	1000	1000		1.0
n	1000	1000	1000	1000	1000	1000	1000	1000		1.0
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		1.0
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		1.0
f	1000	1000	1000	1000	1000	1000	1000	1000		1.0
n	1000	1000	1000	1000	1000	1000	1000	1000		1.0
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		1.0
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		1.0

Group delay (usec)(sbd)	-5.30881121757E+02	Apriori delay (usec)	-5.30879924724E+02	Resid mbdelay (usec)	-1.19703E-03	+/-	3.2E-05
Sband delay (usec)	-5.30881559224E+02	Apriori clock (usec)	7.7040510E+00	Resid sbdelay (usec)	-1.63450E-03	+/-	2.5E-04
Phase delay (usec)	-5.30879921982E+02	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	2.74199E-06	+/-	1.1E-07
Delay rate (us/s)	-1.72500959598E-02	Apriori rate (us/s)	-1.72502117764E-02	Resid rate (us/s)	1.15817E-07	+/-	1.1E-09
Total phase (deg)	-172.6	Apriori accel (us/s/s)	-1.21845288921E-05	Resid phase (deg)	85.0	+/-	3.4

ph/seg (deg)	22.4	Theor.	7.9	Amplitude	0.922 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	17.0		13.9	Search (1024X32)	0.878	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	30.2		4.8	Inc. seg. avg.	0.971	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.0		8.4	Inc. frq. avg.	1.010	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 323.5 el 43.3 pa 101.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) 179.970 -2287.004 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn.W.100.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

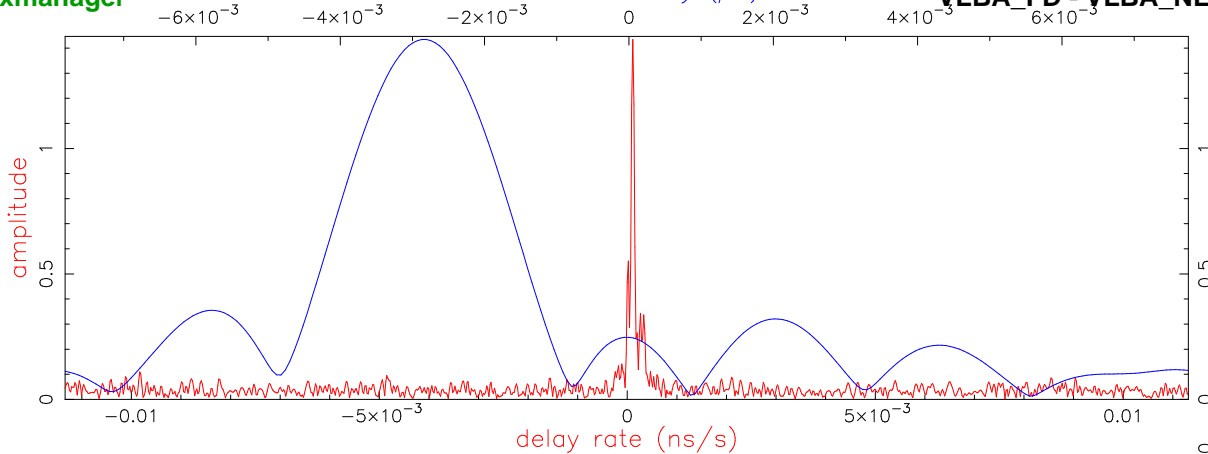
fxmanager

0102+584.1HROB9, No0122, fn

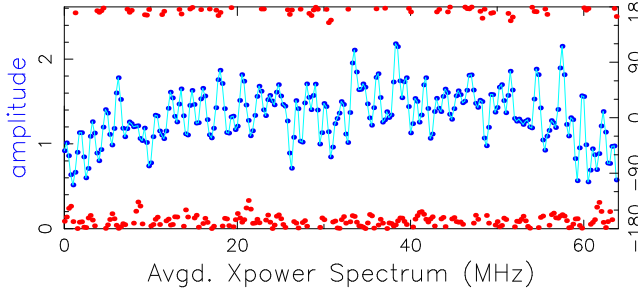
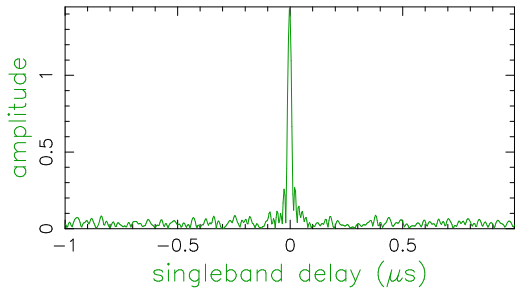
VLBA_FD - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

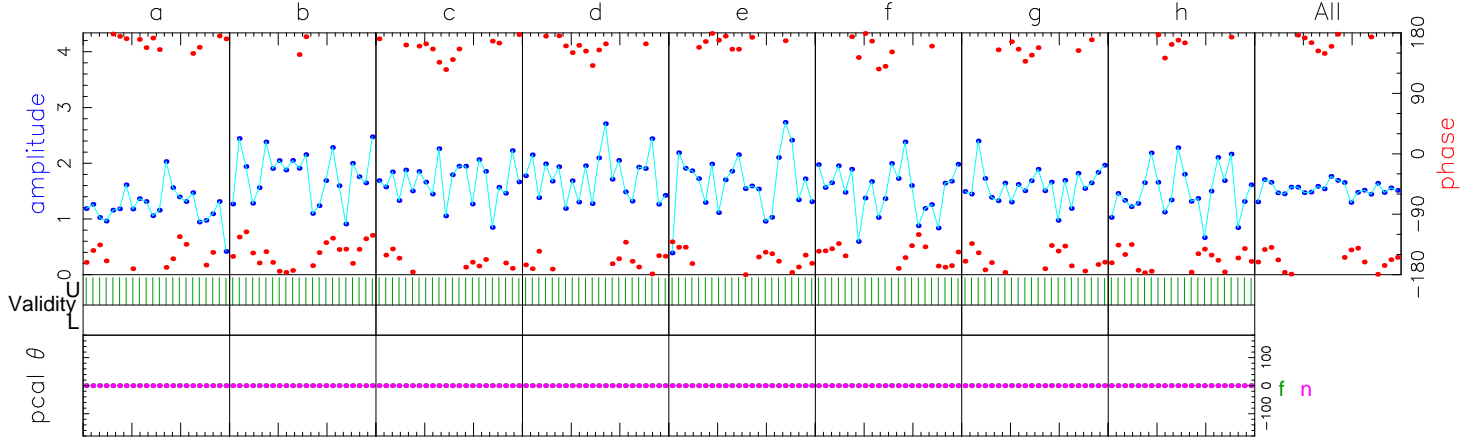


SNR 53.1
 Int time 179.979
 Amp 1.447
 Phase -171.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002716
 MBD -0.002809
 Fringe rate (Hz)
 0.009958
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140410
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0						
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs					
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC					
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000						
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks					
									Chan ids					
									Tracks					
Group delay (usec)(sbd)	-5.30882733539E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	Apriori delay (usec)	-5.30879924724E+02	Resid mbdelay (usec)	-2.80881E-03	+/-	2.0E-05
Sband delay (usec)	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	-5.30882640974E+02	Apriori clock (usec)	7.7040510E+00	Resid sbdelay (usec)	-2.71625E-03	+/-	1.6E-04
Phase delay (usec)	-5.30879930248E+02	-5.30879930248E+02	-5.30879930248E+02	-5.30879930248E+02	-5.30879930248E+02	-5.30879930248E+02	-5.30879930248E+02	-5.30879930248E+02	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-5.52385E-06	+/-	7.0E-08
Delay rate (us/s)	-1.72500961710E-02	-1.72500961710E-02	-1.72500961710E-02	-1.72500961710E-02	-1.72500961710E-02	-1.72500961710E-02	-1.72500961710E-02	-1.72500961710E-02	Apriori rate (us/s)	-1.72502117764E-02	Resid rate (us/s)	1.15605E-07	+/-	6.7E-10
Total phase (deg)			-69.0						Apriori accel (us/s/s)	-1.21845288921E-05	Resid phase (deg)	-171.3	+/-	2.2

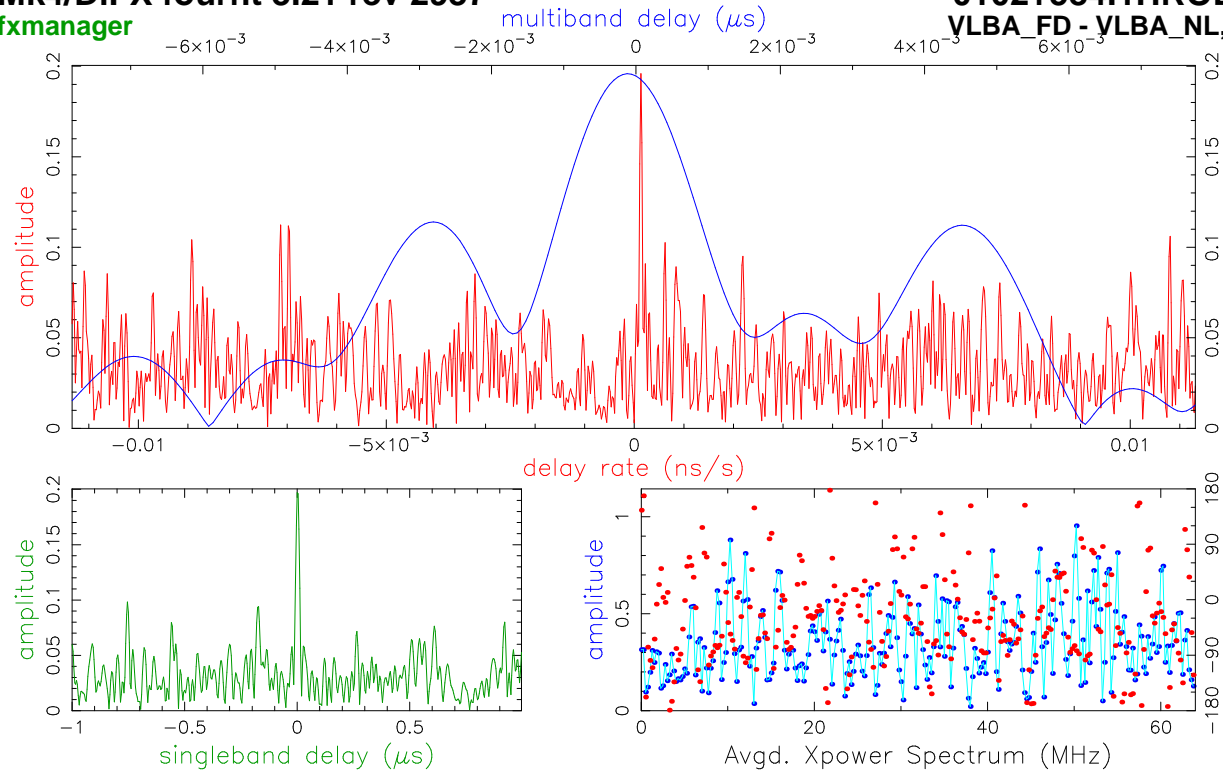
ph/seg (deg) 21.2 5.1 Search (1024X32) 1.415 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 10.3 8.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.6 3.1 Inc. seg. avg. 1.533 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 11.0 5.3 Inc. frq. avg. 1.453 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 323.5 el 43.3 pa 101.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) 179.970 -2287.004 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn.W.114.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, fn

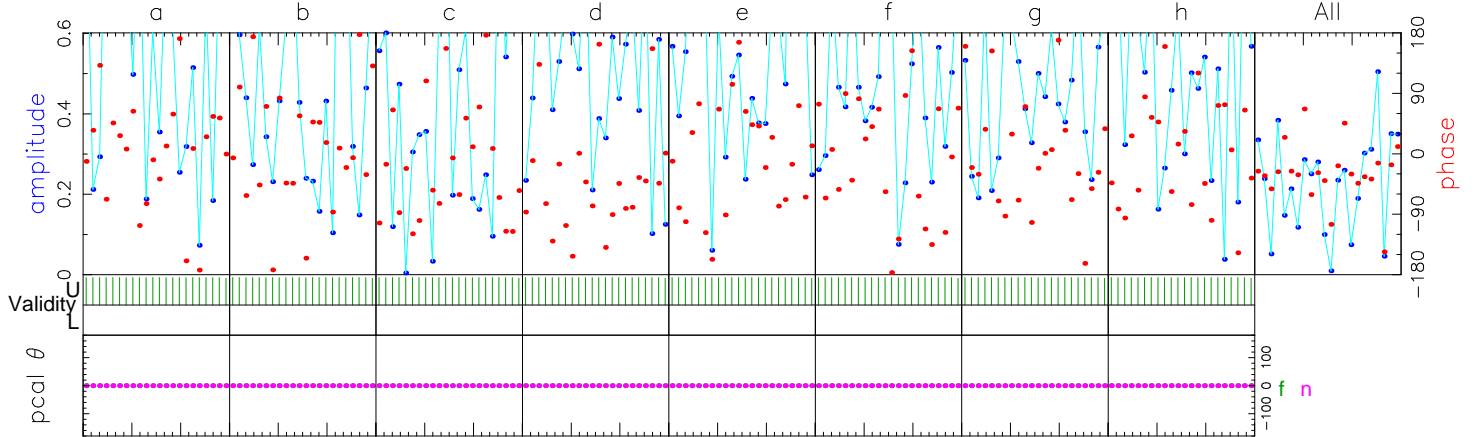
VLBA_FD - VLBA_NL, fgroup W, pol LR



Fringe quality 9

SNR 7.4
 Int time 179.979
 Amp 0.200
 Phase -18.2
 PFD 3.0e-05
 Delays (us)
 SBD 0.001822
 MBD -0.000123
 Fringe rate (Hz)
 0.010612
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140411
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		257.5
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.30880047614E+02									
Sband delay (usec)	-5.30878102474E+02									
Phase delay (usec)	-5.30879925311E+02									
Delay rate (us/s)	-1.72500885838E-02									
Total phase (deg)			-275.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

ph/seg (deg) 44.4 36.5 Search (1024X32) 0.188 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.1 63.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.6 22.0 Inc. seg. avg. 0.190 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.2 38.5 Inc. frq. avg. 0.216 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 323.5 el 43.3 pa 101.5 n: az 316.3 el 45.3 pa 80.8 u, v (fr/asec) 179.970 -2287.004 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn.W.129.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

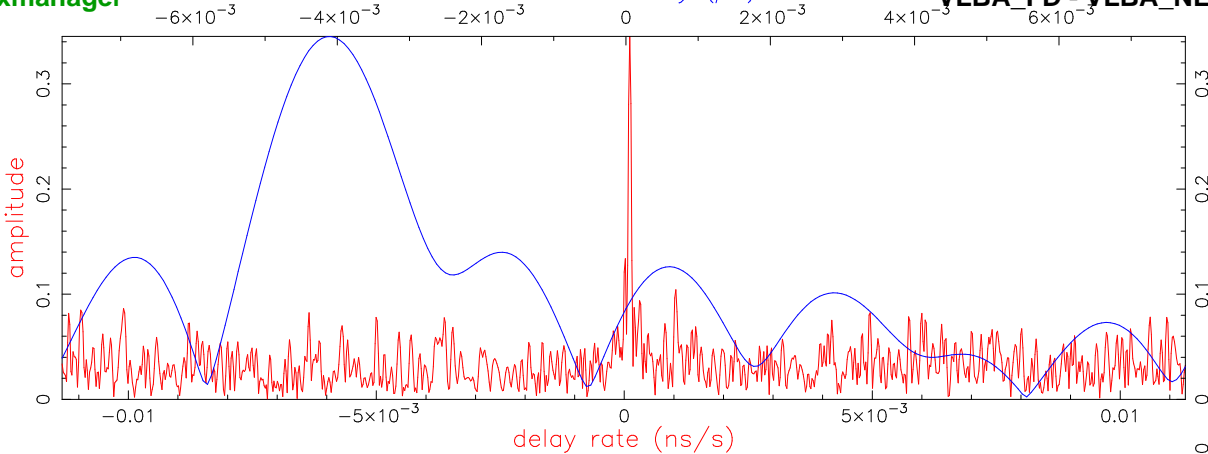
fxmanager

0102+584.1HROB9, No0122, fn

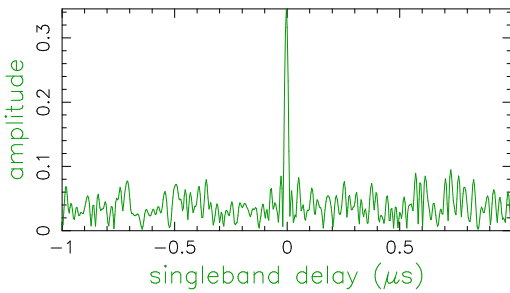
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

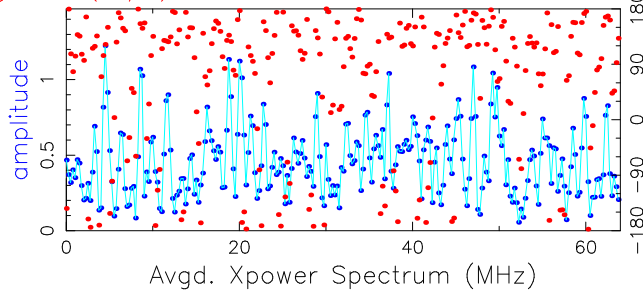
Fringe quality 9



SNR 12.7
 Int time 179.979
 Amp 0.345
 Phase 144.9
 PFD 2.5e-28
 Delays (us)
 SBD -0.003683
 MBD -0.004104
 Fringe rate (Hz)
 0.010230
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

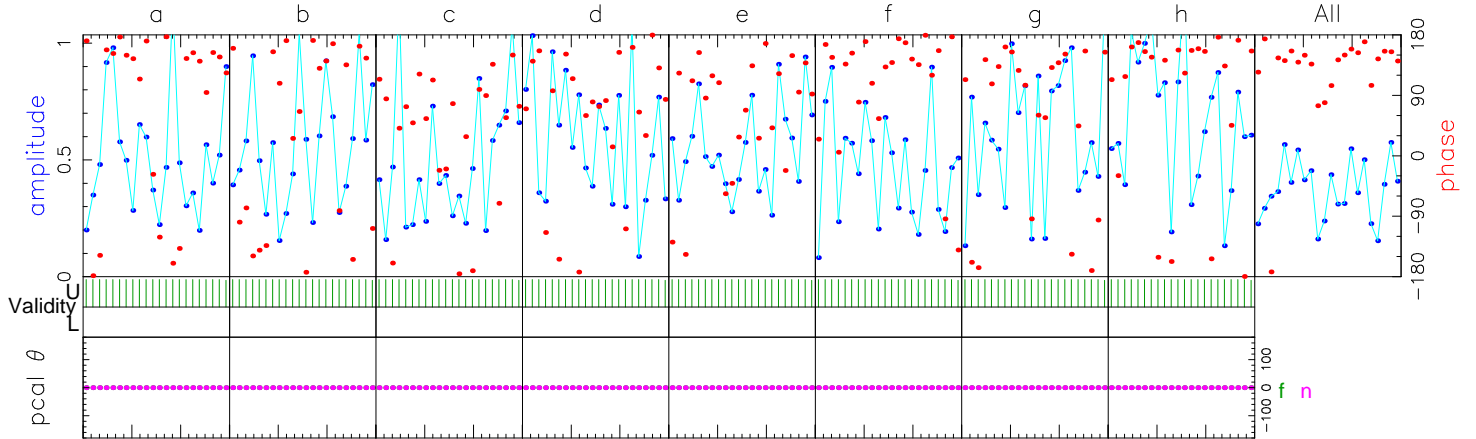


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140414
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.30884028570E+02	Apriori delay (usec)	-5.30879924724E+02	Resid mbdelay (usec)	-4.10385E-03	+/-	8.6E-05
Sband delay (usec)	-5.30883608224E+02	Apriori clock (usec)	7.7040510E+00	Resid sbdelay (usec)	-3.68350E-03	+/-	6.8E-04
Phase delay (usec)	-5.30879920050E+02	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	4.67394E-06	+/-	2.9E-07
Delay rate (us/s)	-1.72500930151E-02	Apriori rate (us/s)	-1.72502117764E-02	Resid rate (us/s)	1.18761E-07	+/-	2.8E-09
Total phase (deg)	-112.7	Apriori accel (us/s/s)	-1.21845288921E-05	Resid phase (deg)	144.9	+/-	9.0

ph/seg (deg)	27.8	Theor.	21.2	Amplitude	0.345 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	36.9		37.0	Search (1024X32)	0.327	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	29.3		12.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	27.1		22.3	Inc. seg. avg.	0.351	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.363	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 323.5 el 43.3 pa 101.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) 179.970 -2287.004 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/fn.W.152.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

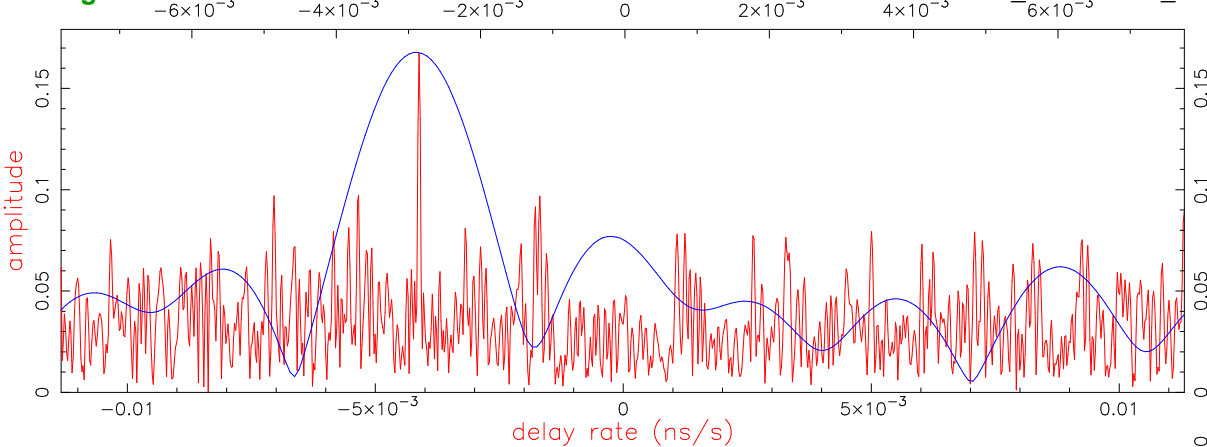
fxmanager

0102+584.1HROB9, No0122, kn

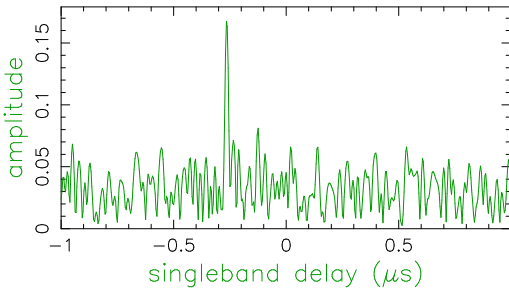
VLBA_KP - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

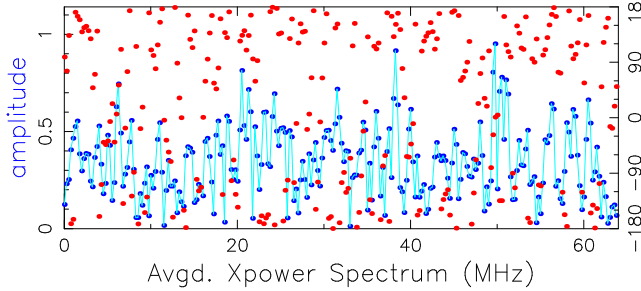
Fringe quality 0



SNR 6.2
Int time 179.960
Amp 0.179
Phase 26.5
PFD 6.5e-02
Delays (us)
SBD -0.264199
MBD -0.002819
Fringe rate (Hz)
-0.356072
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

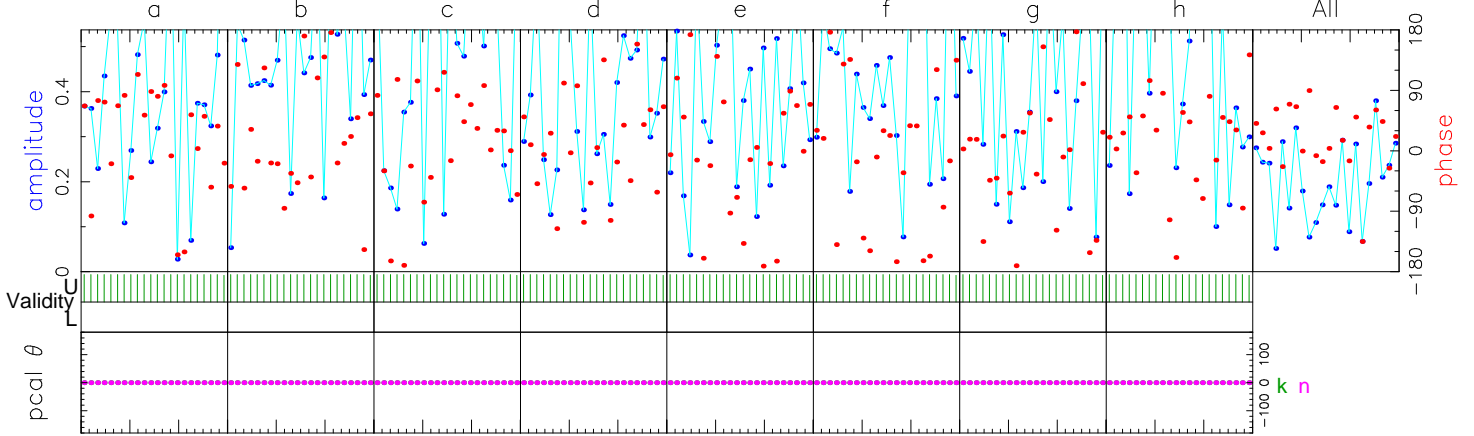


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140414
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All			
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0					
k	1000	1000	1000	1000	1000	1000	1000	1000					
n	1000	1000	1000	1000	1000	1000	1000	1000					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
k	1000	1000	1000	1000	1000	1000	1000	1000					
n	1000	1000	1000	1000	1000	1000	1000	1000					
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL					
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL					
Group delay (usec)(sbd)		7.47438151910E+02				7.47706595476E+02			Resid mbdelay (usec)	-2.81857E-03	+/- 1.7E-04		
Sband delay (usec)		7.47442396226E+02				1.9520378E-01			Resid sbdelay (usec)	-2.64199E-01	+/- 1.4E-03		
Phase delay (usec)		7.47706596329E+02				-4.0000002E-07			Resid phdelay (usec)	8.53275E-07	+/- 5.9E-07		
Delay rate (us/s)		4.67016976116E-02				4.67058312489E-02			Resid rate (us/s)	-4.13364E-06	+/- 5.7E-09		
Total phase (deg)			74.8			-1.71270881330E-05			Resid phase (deg)	26.5	+/- 18.4		
	RMS	Theor.	Amplitude	0.179 +/- 0.029		Pcal mode: MANUAL, MANUAL			PC period (AP's)	5, 5			
ph/seg (deg)	47.8	43.2	Search (1024X32)	0.161		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000	1.000		
amp/seg (%)	55.7	75.4	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	17.3	26.1	Inc. seg. avg.	0.167		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011		
amp/frq (%)	47.2	45.5	Inc. frq. avg.	0.165		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 324.1 el 48.2 pa 107.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -525.457 -2826.479 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn.W.157.1HROB9

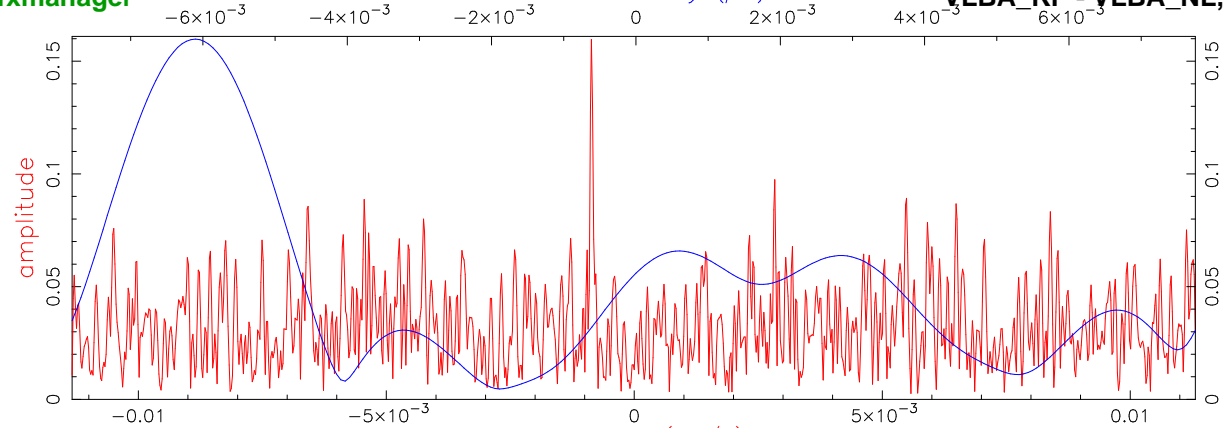
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

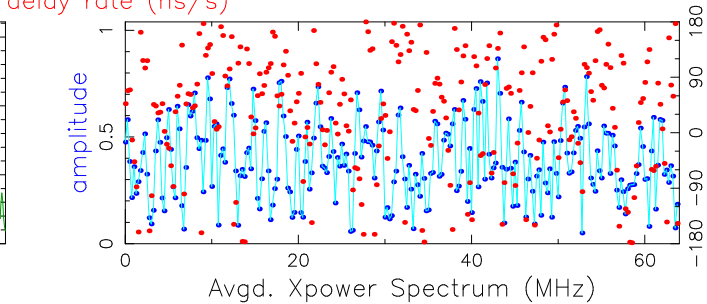
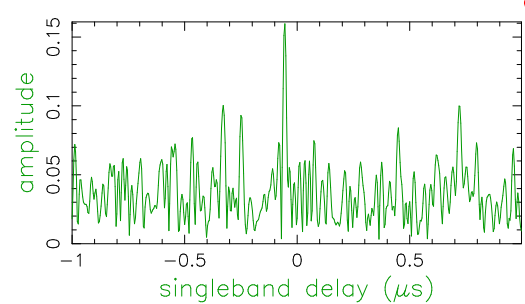
0102+584.1HROB9, No0122, kn

VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

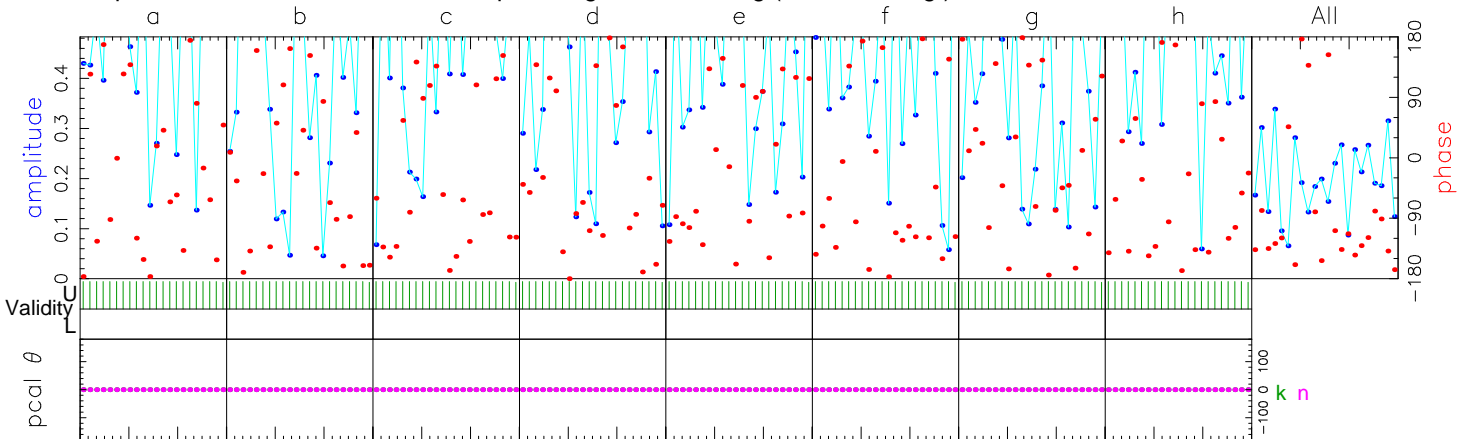


Fringe quality 0
 SNR 5.9
 Int time 179.960
 Amp 0.161
 Phase -131.0
 PFD 3.8e-01
 Delays (us)
 SBD -0.055641
 MBD -0.006159
 Fringe rate (Hz)
 -0.074775
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140416
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.4	-126.5	-135.5	-141.0	-162.0	-126.5	-152.2	-117.6	Phase	-131.0
	0.1	0.1	0.2	0.2	0.1	0.3	0.0	0.2	Ampl.	0.1
	431.1	65.0	241.9	441.2	142.1	243.5	266.2	245.3	Sbd box	242.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.47653561602E+02		Apriori delay (usec)		7.47706595476E+02		Resid mbdelay (usec)		-6.15887E-03	+/- 1.8E-04
Sband delay (usec)	7.47650954976E+02		Apriori clock (usec)		1.9520378E-01		Resid sbdelay (usec)		-5.56405E-02	+/- 1.5E-03
Phase delay (usec)	7.47706591253E+02		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-4.22335E-06	+/- 6.3E-07
Delay rate (us/s)	4.67049631808E-02		Apriori rate (us/s)		4.67058312489E-02		Resid rate (us/s)		-8.68068E-07	+/- 6.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.71270881330E-05		Resid phase (deg)		-131.0	+/- 19.4

ph/seg (deg) 53.0 45.6 Search (1024X32) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.5 79.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.3 27.5 Inc. seg. avg. 0.152 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 52.8 48.0 Inc. frq. avg. 0.146 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 324.1 el 48.2 pa 107.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -525.457 -2826.479 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn.W.164.1HROB9

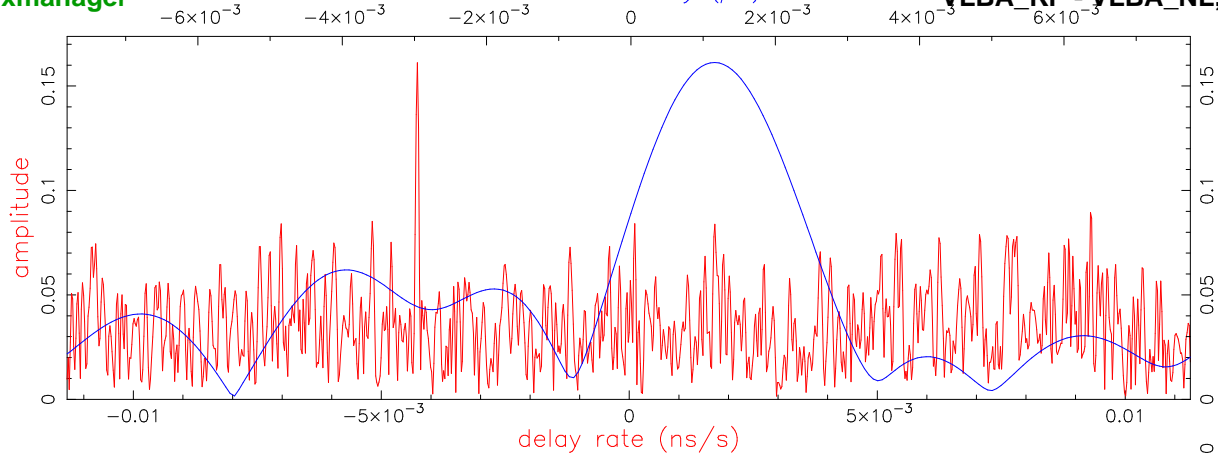
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, kn

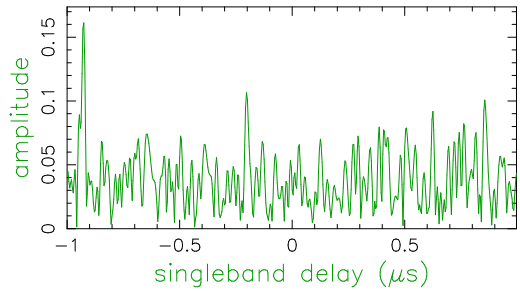
VLBA_KP - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

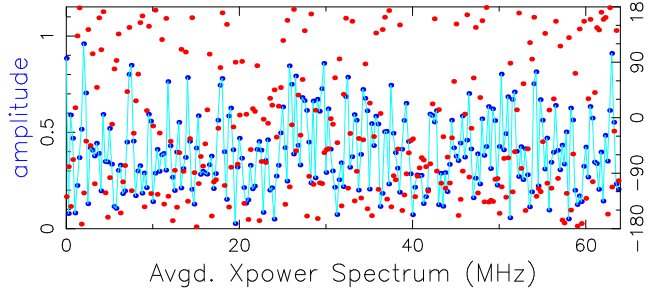


Fringe quality 0

SNR 6.0
 Int time 179.960
 Amp 0.174
 Phase -17.5
 PFD 2.2e-01
 Delays (us)
 SBD -0.927230
 MBD 0.001114
 Fringe rate (Hz)
 -0.369324
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

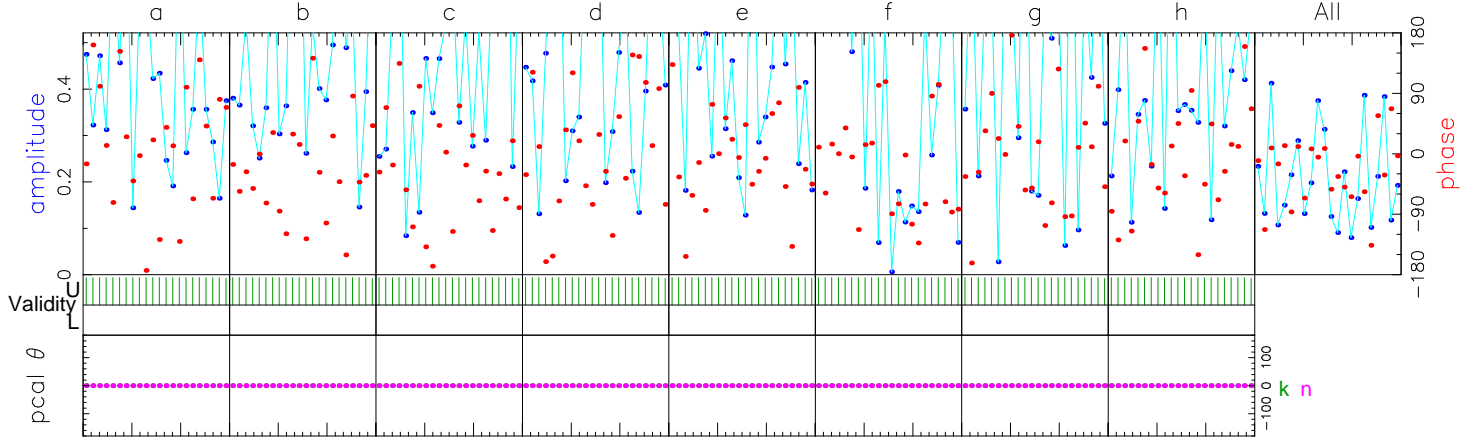


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140419
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		7.46785834563E+02			7.47706595476E+02				1.11409E-03	+/- 1.8E-04
Sband delay (usec)		7.46779365476E+02			1.9520378E-01				-9.27230E-01	+/- 1.4E-03
Phase delay (usec)		7.47706594913E+02			-4.0000002E-07				-5.62718E-07	+/- 6.2E-07
Delay rate (us/s)		4.67015437582E-02			4.67058312489E-02				-4.28749E-06	+/- 5.9E-09
Total phase (deg)			30.9		-1.71270881330E-05				-17.5	+/- 19.1
pcal mode:					MANUAL				MANUAL	PC period (AP's) 5, 5
pcal rate:					0.000E+00				0.000E+00	(us/s)
Bits/sample:					2x2				SampCntNorm: enabled	sb window (us) -1.000 1.000
Sample rate (MSamp/s):					128					mb window (us) -0.008 0.008
Data rate (Mb/s):					2048					dr window (ns/s) -0.011 0.011
										ion window (TEC) 0.00 0.00

k: az 324.1 el 48.2 pa 107.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -525.457 -2826.479 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn.W.186.1HROB9

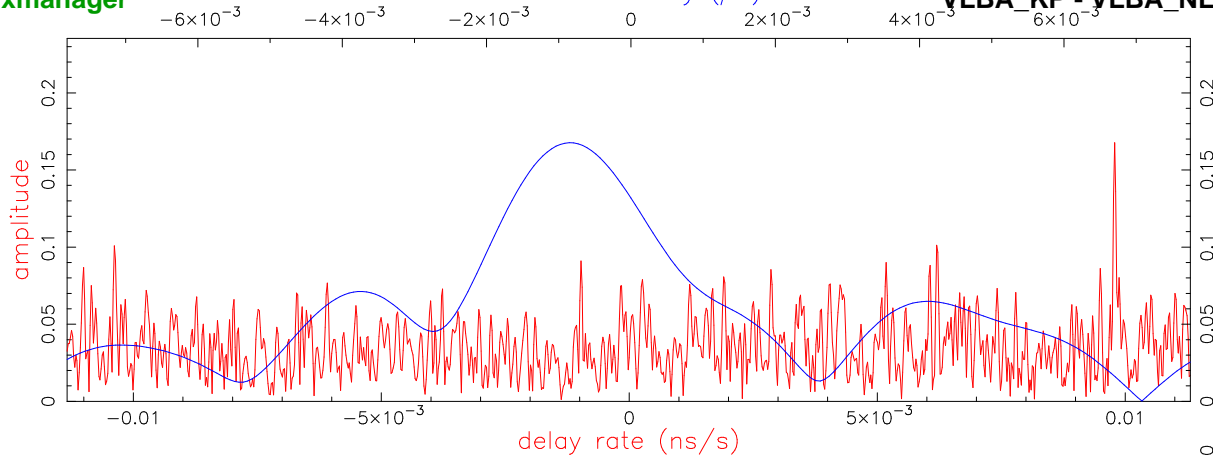
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, kn

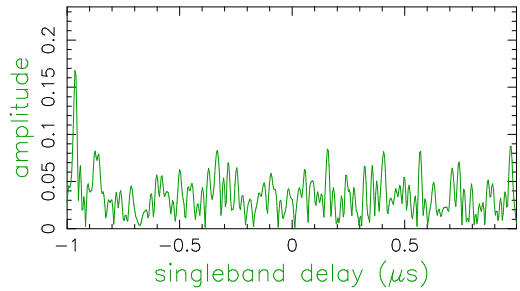
VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

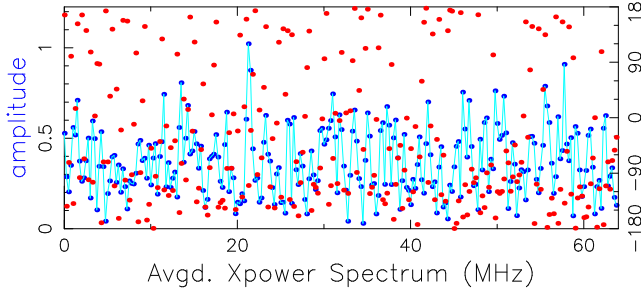


Fringe quality 0

SNR 6.2
 Int time 179.960
 Amp 0.235
 Phase -57.7
 PFD 6.6e-02
 Delays (us)
 SBD -0.963521
 MBD -0.000853
 Fringe rate (Hz)
 0.843664
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

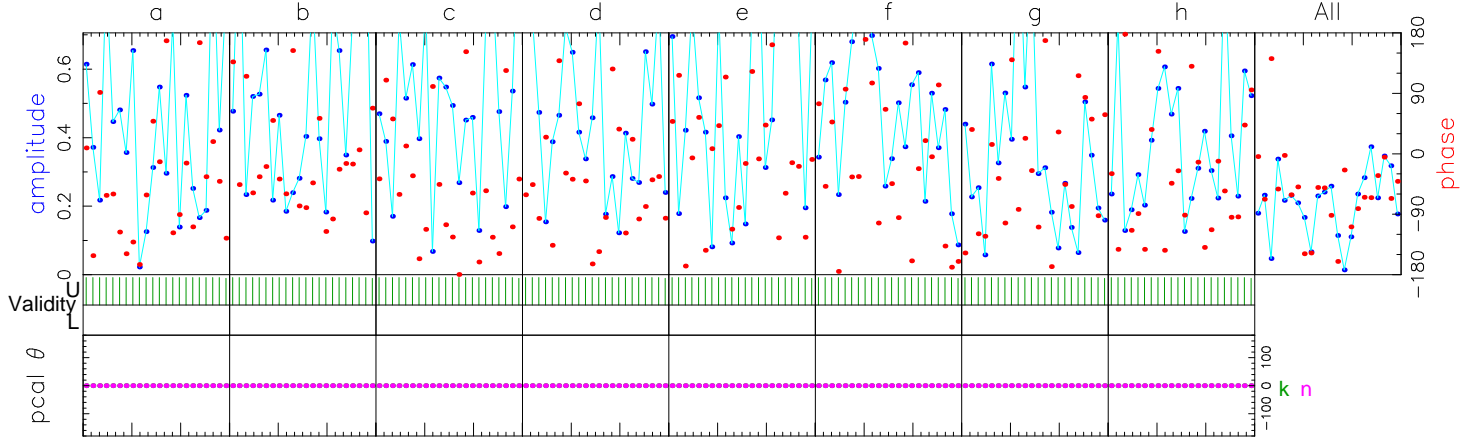


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140421
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-70.6	-40.2	-84.6	-68.3	-12.4	-49.7	-47.1	-85.0	Phase	-57.7
	0.3	0.5	0.4	0.3	0.3	0.0	0.2	0.2	Ampl.	0.2
	446.3	10.2	6.6	233.9	15.7	298.7	296.1	381.7	Sbd box	10.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.46736992796E+02		Apriori delay (usec)	7.47706595476E+02	Resid mbdelay (usec)	-8.52680E-04	+/-	1.7E-04		
Sband delay (usec)	7.46743074726E+02		Apriori clock (usec)	1.9520378E-01	Resid sbdelay (usec)	-9.63521E-01	+/-	1.4E-03		
Phase delay (usec)	7.47706593615E+02		Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-1.86119E-06	+/-	5.9E-07		
Delay rate (us/s)	4.67156253560E-02		Apriori rate (us/s)	4.67058312489E-02	Resid rate (us/s)	9.79411E-06	+/-	5.7E-09		
Total phase (deg)		-9.4	Apriori accel (us/s/s)	-1.71270881330E-05	Resid phase (deg)	-57.7	+/-	18.4		

ph/seg (deg) 55.8 43.2 Amplitude 0.235 +/- 0.038 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.1 75.5 Search (1024X32) 0.159 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.7 26.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 52.4 45.5 Inc. seg. avg. 0.227 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.230 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

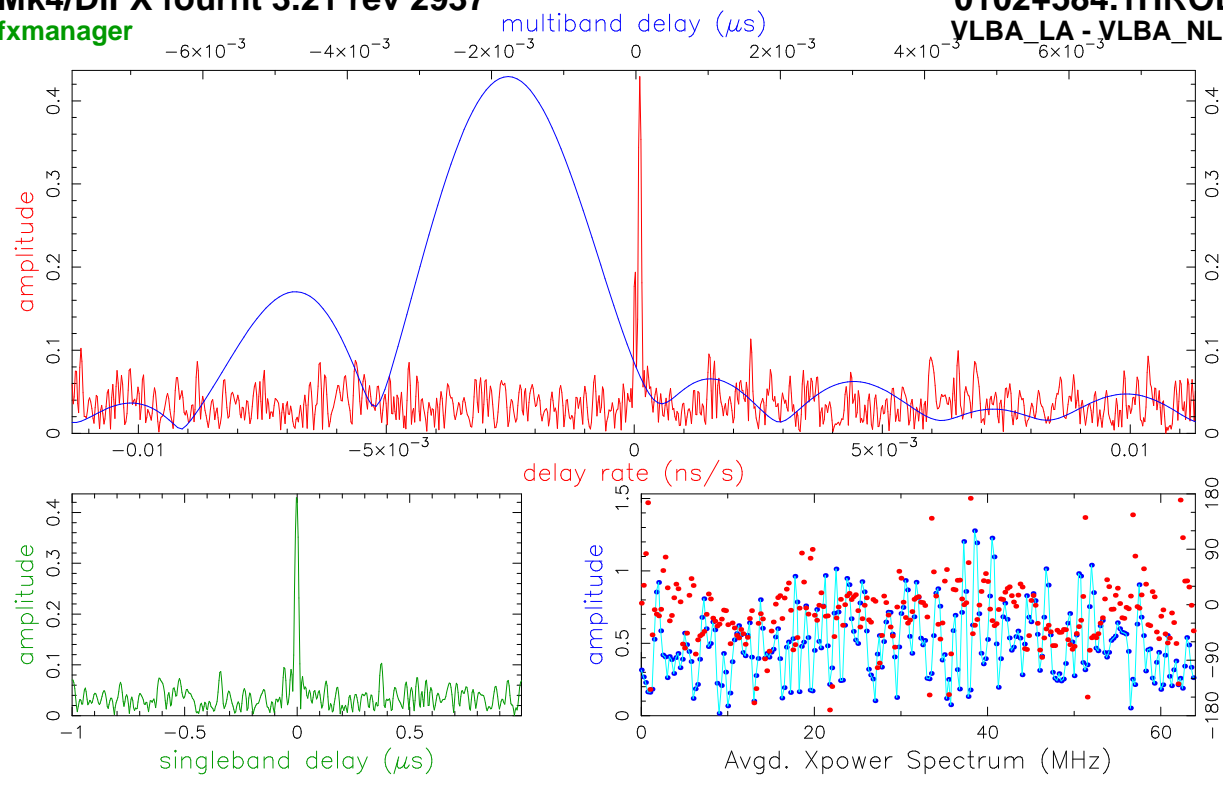
k: az 324.1 el 48.2 pa 107.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -525.457 -2826.479 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/kn.W.203.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, In

VLBA_LA - VLBA_NL, fgroup W, pol LL

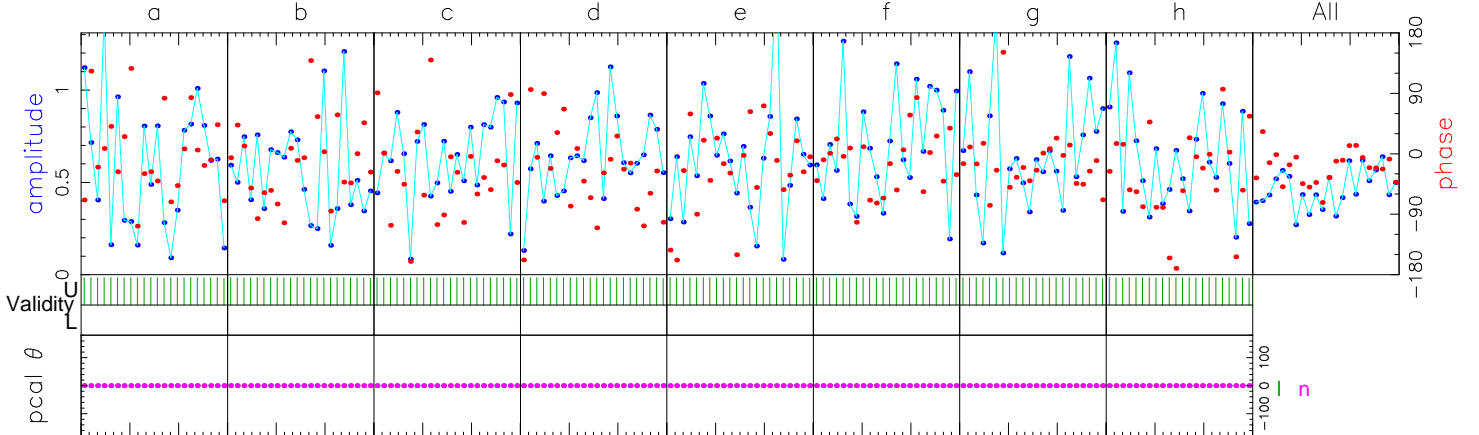


Fringe quality 9

SNR 16.0
 Int time 179.978
 Amp 0.437
 Phase -19.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002158
 MBD -0.001749
 Fringe rate (Hz) 0.009739
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140417
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		8.15581476431E+02				8.15583225589E+02			Apriori delay (usec)	
Sband delay (usec)		8.15581067589E+02				-5.2169418E-01			Apriori clock (usec)	
Phase delay (usec)		8.15583224951E+02				-6.0000003E-07			Apriori clockrate (us/s)	
Delay rate (us/s)		3.08203128279E-02				3.08201997719E-02			Apriori rate (us/s)	
Total phase (deg)			-1.0			-1.21706482244E-05			Apriori accel (us/s/s)	
									Resid mbdelay (usec)	-1.74916E-03 +/- 6.8E-05
									Resid sbdelay (usec)	-2.15800E-03 +/- 5.4E-04
									Resid phdelay (usec)	-6.38457E-07 +/- 2.3E-07
									Resid rate (us/s)	1.13056E-07 +/- 2.2E-09
									Resid phase (deg)	-19.8 +/- 7.2

ph/seg (deg) 24.0 16.8
 amp/seg (%) 23.8 29.3
 ph/frq (deg) 13.1 10.1
 amp/frq (%) 17.1 17.7

RMS Theor. Amplitude 0.437 +/- 0.027
 Search (1024X32) 0.423
 Interp. 0.000
 Inc. seg. avg. 0.446
 Inc. frq. avg. 0.431

Group delay (usec)(sbd) 8.15581476431E+02
 Sband delay (usec) 8.15581067589E+02
 Phase delay (usec) 8.15583224951E+02
 Delay rate (us/s) 3.08203128279E-02
 Total phase (deg) -1.0

Apriori delay (usec) 8.15583225589E+02
 Apriori clock (usec) -5.2169418E-01
 Apriori clockrate (us/s) -6.0000003E-07
 Apriori rate (us/s) 3.08201997719E-02
 Apriori accel (us/s/s) -1.21706482244E-05

Resid mbdelay (usec) -1.74916E-03 +/- 6.8E-05
 Resid sbdelay (usec) -2.15800E-03 +/- 5.4E-04
 Resid phdelay (usec) -6.38457E-07 +/- 2.3E-07
 Resid rate (us/s) 1.13056E-07 +/- 2.2E-09
 Resid phase (deg) -19.8 +/- 7.2

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

l: az 320.5 el 48.5 pa 99.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -347.504 -1935.767 simultaneous interpolator

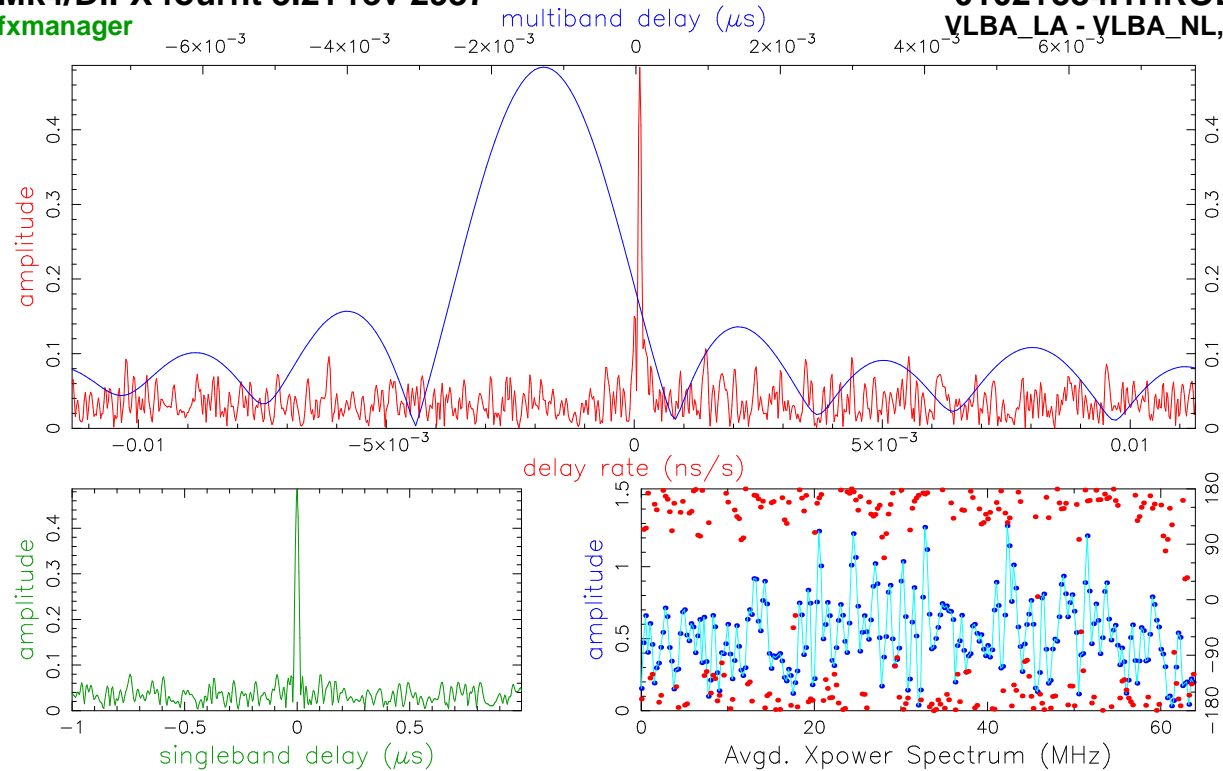
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/In..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/In.W.170.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, In

VLBA_LA - VLBA_NL, fgroup W, pol RR

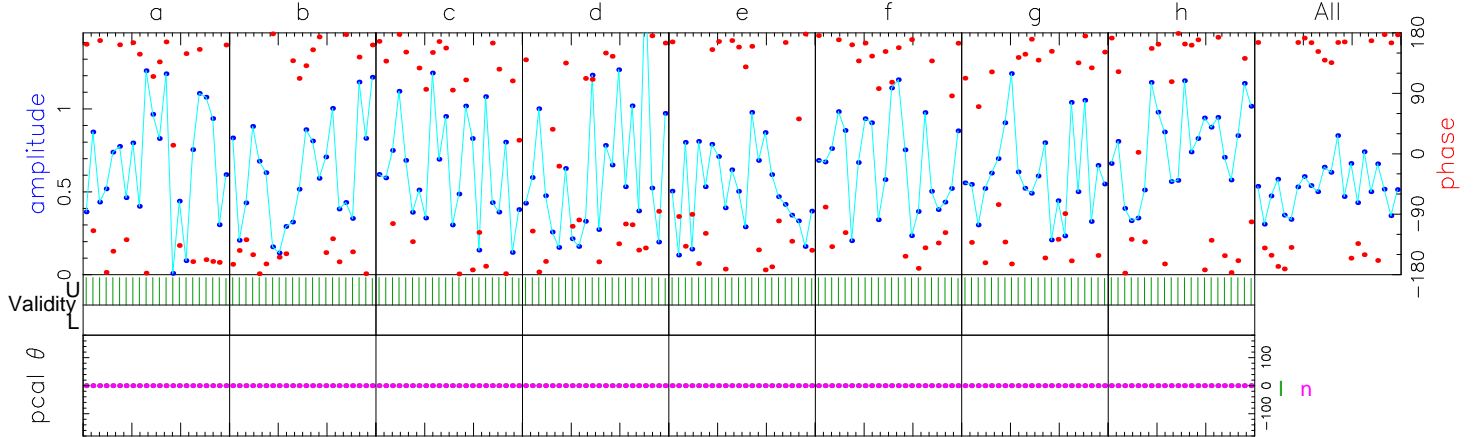


Fringe quality 9

SNR 17.8
 Int time 179.978
 Amp 0.486
 Phase 179.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.000949
 MBD -0.001295
 Fringe rate (Hz)
 0.009925
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140419
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)		8.15581930338E+02		Apriori delay (usec)	8.15583225589E+02		Resid mbdelay (usec)	-1.29525E-03	+/-	6.1E-05
Sband delay (usec)		8.15582276839E+02		Apriori clock (usec)	-5.2169418E-01		Resid sbdelay (usec)	-9.48750E-04	+/-	4.8E-04
Phase delay (usec)		8.15583231374E+02		Apriori clockrate (us/s)	-6.0000003E-07		Resid phdelay (usec)	5.78515E-06	+/-	2.1E-07
Delay rate (us/s)		3.08203149890E-02		Apriori rate (us/s)	3.08201997719E-02		Resid rate (us/s)	1.15217E-07	+/-	2.0E-09
Total phase (deg)			198.2	Apriori accel (us/s/s)	-1.21706482244E-05		Resid phase (deg)	179.4	+/-	6.4

ph/seg (deg) 25.5 15.1 Search (1024X32) 0.472 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 28.5 26.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.8 9.1 Inc. seg. avg. 0.515 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.3 15.9 Inc. frq. avg. 0.483 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 320.5 el 48.5 pa 99.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -347.504 -1935.767 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/In..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/In.W.188.1HROB9

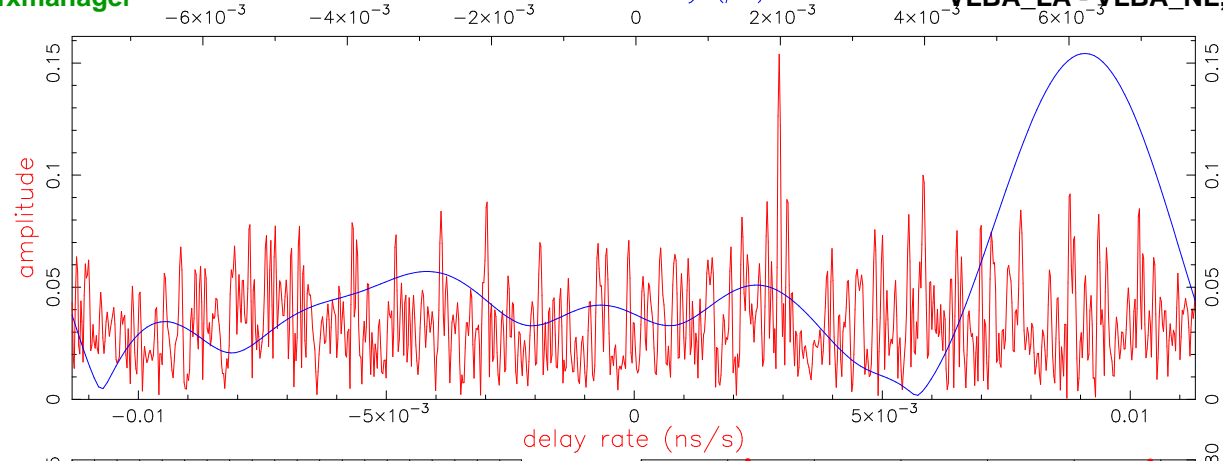
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

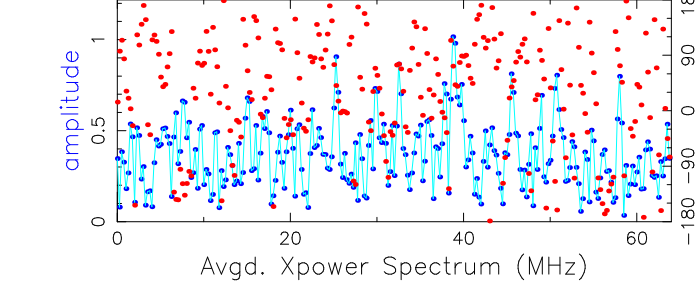
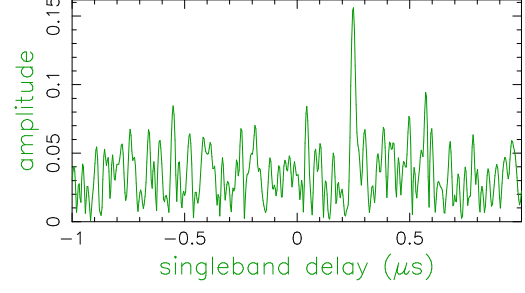
0102+584.1HROB9, No0122, In

VLBA_LA - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

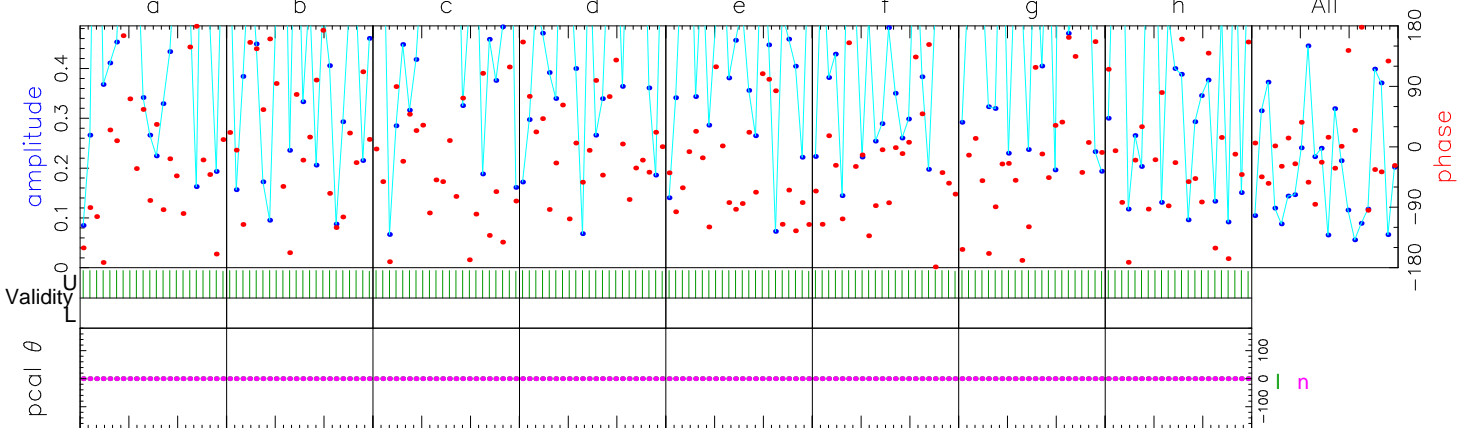


Fringe quality 0
 SNR 5.8
 Int time 179.978
 Amp 0.162
 Phase -31.6
 PFD 6.1e-01
 Delays (us)
 SBD 0.248468
 MBD 0.006297
 Fringe rate (Hz) 0.251757
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140421
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-41.2	23.8	-50.2	0.0	-55.2	-61.0	-15.8	-45.0		Phase -31.6
	0.2	0.1	0.2	0.3	0.2	0.1	0.2	0.2		Ampl. 0.2
	36.9	268.2	66.5	319.8	296.1	266.9	295.8	345.4		Sbd box 320.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		APs used
l	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
n	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
l	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	8.15823897581E+02		Apriori delay (usec)		8.15583225589E+02		Resid mbdelay (usec)		6.29699E-03	+/- 1.9E-04
Sband delay (usec)	8.15831693339E+02		Apriori clock (usec)		-5.2169418E-01		Resid sbdelay (usec)		2.48468E-01	+/- 1.5E-03
Phase delay (usec)	8.15583224571E+02		Apriori clockrate (us/s)		-6.0000003E-07		Resid phdelay (usec)		-1.01846E-06	+/- 6.4E-07
Delay rate (us/s)	3.08231224232E-02		Apriori rate (us/s)		3.08201997719E-02		Resid rate (us/s)		2.92265E-06	+/- 6.1E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.21706482244E-05		Resid phase (deg)		-31.6	+/- 19.8

ph/seg (deg) 68.2 46.5 Search (1024X32) 0.152 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.3 81.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.6 28.0 Inc. seg. avg. 0.157 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.1 49.0 Inc. frq. avg. 0.156 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 320.5 el 48.5 pa 99.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -347.504 -1935.767 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/In..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/In.W.204.1HROB9

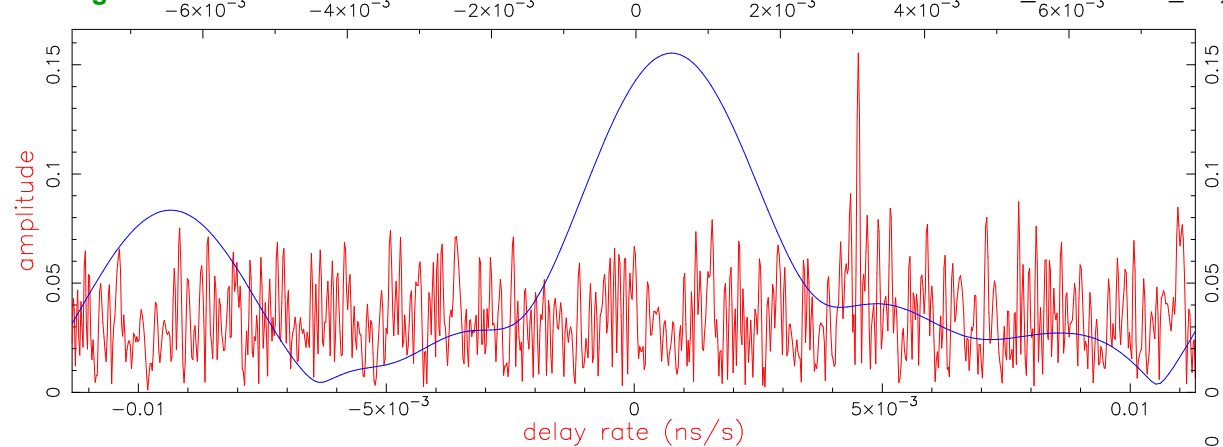
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, In

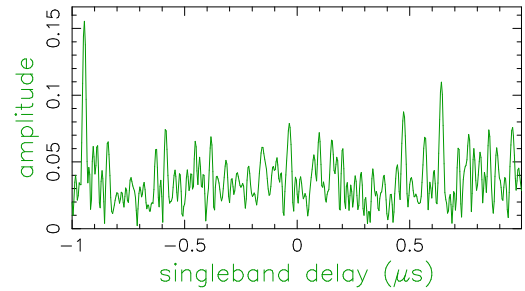
VLBA_LA - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

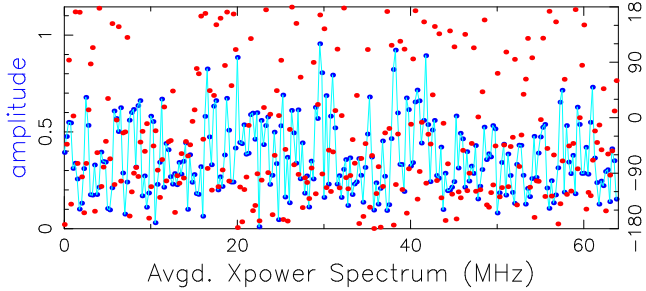


Fringe quality 0

SNR 5.7
 Int time 179.978
 Amp 0.166
 Phase 151.6
 PFD 7.6e-01
 Delays (us)
 SBD -0.945727
 MBD 0.000479
 Fringe rate (Hz)
 0.389608
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

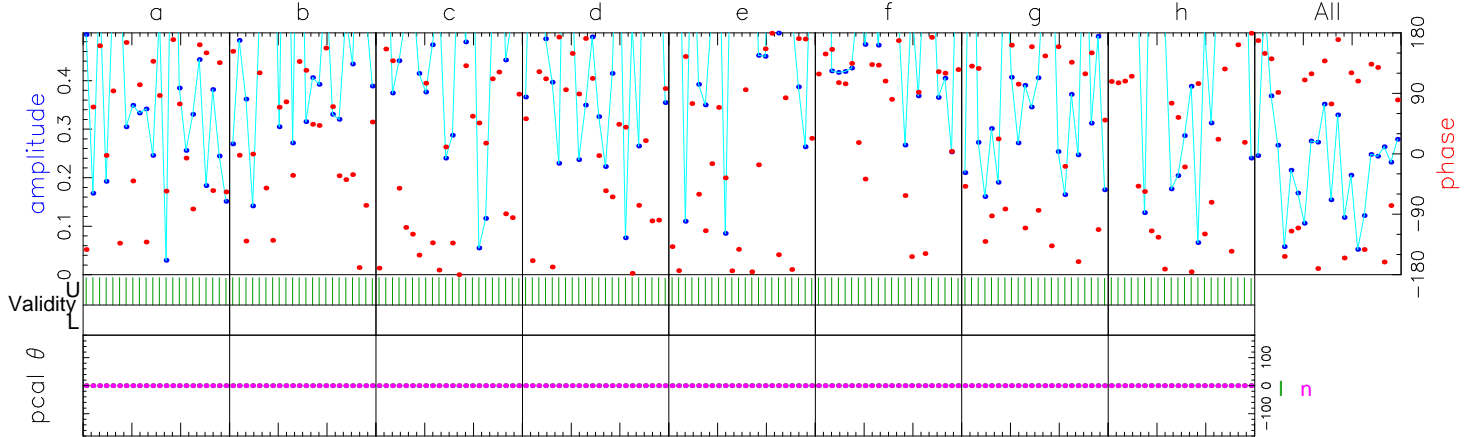


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140423
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)		8.14630579249E+02				8.15583225589E+02			Resid mbdelay (usec)	4.78660E-04 +/- 1.9E-04
Sband delay (usec)		8.14637499089E+02				-5.2169418E-01			Resid sbdelay (usec)	-9.45727E-01 +/- 1.5E-03
Phase delay (usec)		8.15583230479E+02				-6.0000003E-07			Resid phdelay (usec)	4.88980E-06 +/- 6.5E-07
Delay rate (us/s)		3.08247227290E-02				3.08201997719E-02			Resid rate (us/s)	4.52296E-06 +/- 6.2E-09
Total phase (deg)			170.4			-1.21706482244E-05			Resid phase (deg)	151.6 +/- 20.1
ph/seg (deg)	57.1	47.1		0.166 +/- 0.029					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	87.9	82.2		0.000					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	35.1	28.4		0.187					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	52.0	49.6		0.161					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 320.5 el 48.5 pa 99.5 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -347.504 -1935.767 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/In..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/In.W.224.1HROB9

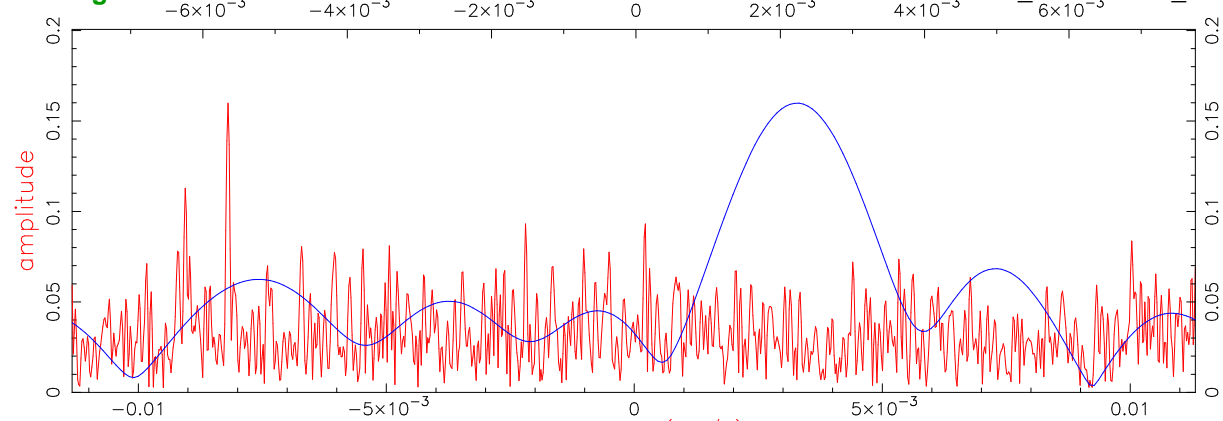
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, mn

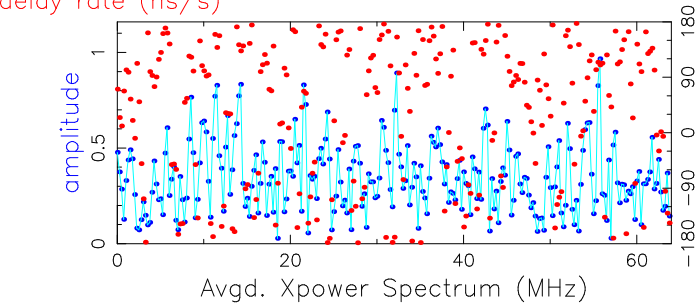
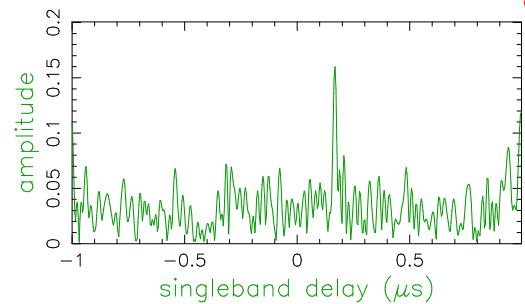
VLBA_MK - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)



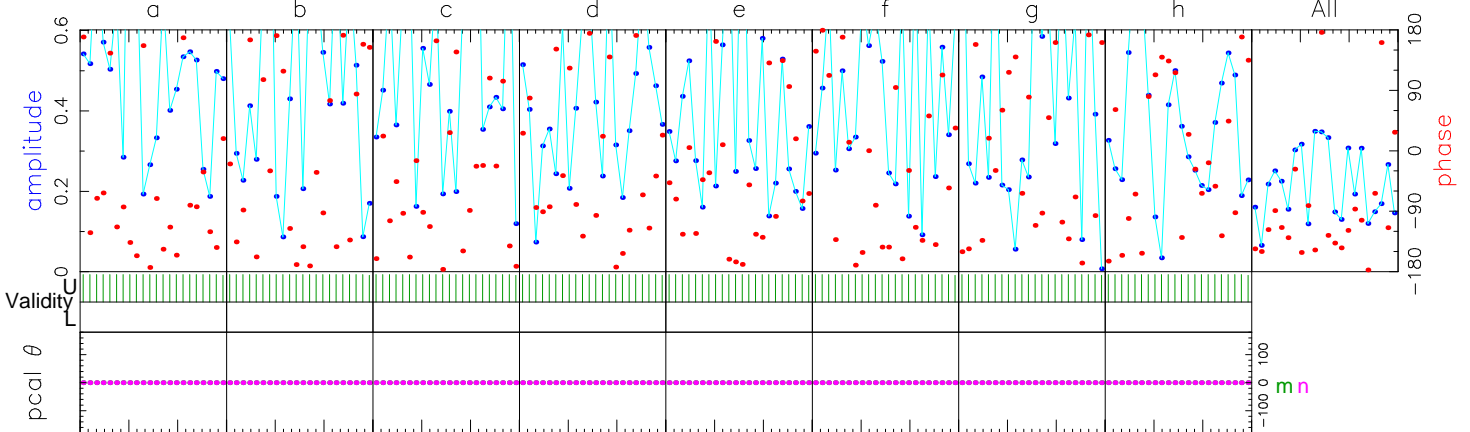
Fringe quality 0

SNR 5.9
 Int time 179.977
 Amp 0.201
 Phase -123.2
 PFD 4.2e-01
 Delays (us)
 SBD 0.167433
 MBD 0.002220
 Fringe rate (Hz) -0.706440
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140418
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-125.3	-141.8	-105.4	-112.8	-109.8	-165.3	-117.4	-120.0	Phase	-123.2
	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.1	Ampl.	0.2
	300.2	279.1	260.4	350.2	69.1	507.2	401.9	333.1	Sbd box	299.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.52469814715E+03 Apriori delay (usec) 1.52452405187E+03 Resid mbdelay (usec) 2.22029E-03 +/- 1.8E-04
 Sband delay (usec) 1.52469148512E+03 Apriori clock (usec) 1.3225204E+01 Resid sbdelay (usec) 1.67433E-01 +/- 1.5E-03
 Phase delay (usec) 1.52452404789E+03 Apriori clockrate (us/s) -4.0000002E-07 Resid phdelay (usec) -3.97324E-06 +/- 6.3E-07
 Delay rate (us/s) 4.98936380157E-01 Apriori rate (us/s) 4.98944581225E-01 Resid rate (us/s) -8.20107E-06 +/- 6.0E-09
 Total phase (deg) 174.8 Apriori accel (us/s/s) -3.94760466418E-05 Resid phase (deg) -123.2 +/- 19.5

ph/seg (deg) RMS Theor. Amplitude 0.201 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.2 45.7 Search (1024X32) 0.155 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 64.2 79.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.5 27.6 Inc. seg. avg. 0.207 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.9 48.1 Inc. frq. avg. 0.187 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 356.2 el 51.1 pa 173.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -5501.429 -6549.871 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn.W.180.1HROB9

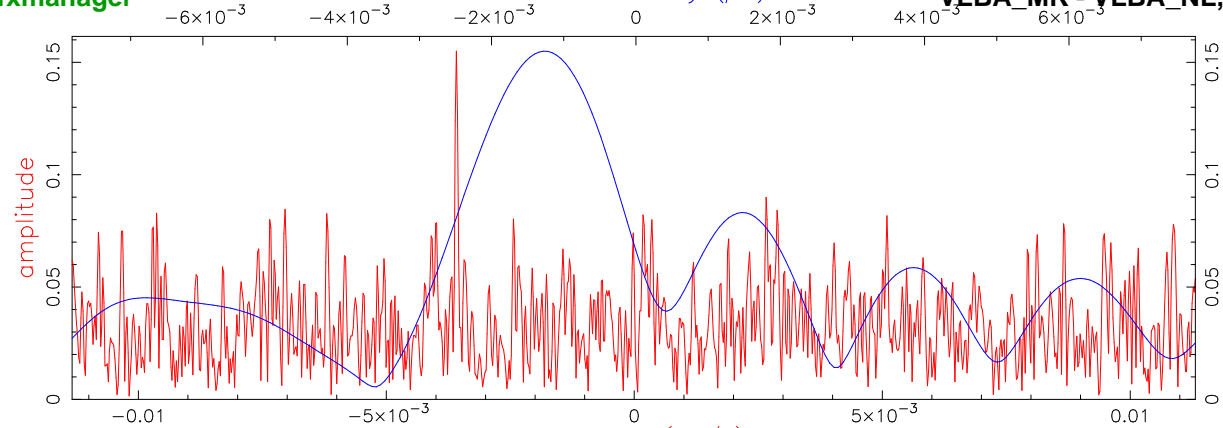
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

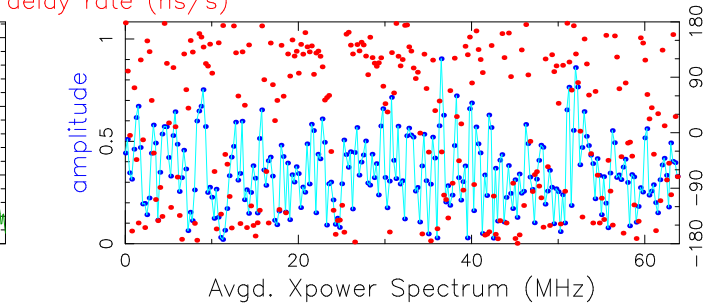
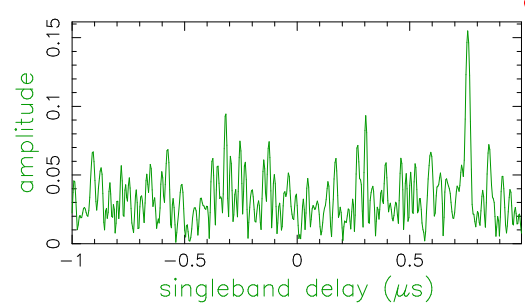
0102+584.1HROB9, No0122, mn

VLBA_MK - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

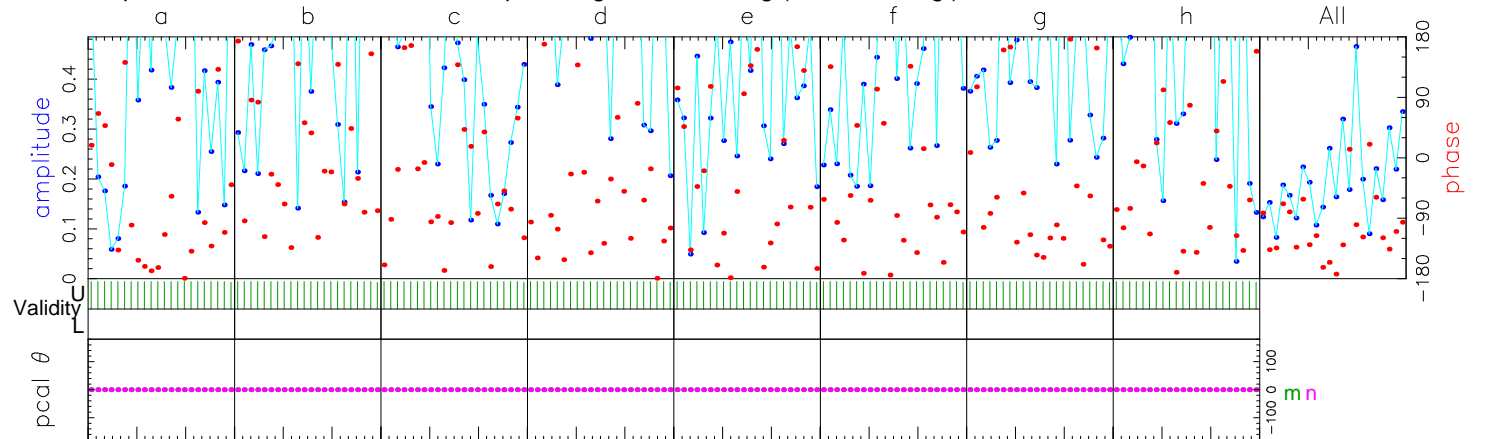


Fringe quality 0
 SNR 5.7
 Int time 179.977
 Amp 0.162
 Phase -109.6
 PFD 8.0e-01
 Delays (us)
 SBD 0.757775
 MBD -0.001265
 Fringe rate (Hz)
 -0.309212
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140421
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-132.8	-52.2	-87.2	-114.4	-164.5	-114.6	-126.1	-73.7	Phase	-109.6
	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2	Ampl.	0.2
	454.3	79.6	173.8	299.8	8.3	99.4	449.8	90.9	Sbd box	451.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.52528841226E+03		Apriori delay (usec)		1.52452405187E+03		Resid mbdelay (usec)		-1.26461E-03	+/- 1.9E-04
Sband delay (usec)	1.52528182737E+03		Apriori clock (usec)		1.3225204E+01		Resid sbdelay (usec)		7.57775E-01	+/- 1.5E-03
Phase delay (usec)	1.52452404833E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-3.53288E-06	+/- 6.5E-07
Delay rate (us/s)	4.98940991586E-01		Apriori rate (us/s)		4.98944581225E-01		Resid rate (us/s)		-3.58964E-06	+/- 6.2E-09
Total phase (deg)	188.4		Apriori accel (us/s/s)		-3.94760466418E-05		Resid phase (deg)		-109.6	+/- 20.2

ph/seg (deg) 49.0 47.3 Search (1024X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.6 82.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.6 28.5 Inc. seg. avg. 0.156 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.2 49.7 Inc. frq. avg. 0.165 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 356.2 el 51.1 pa 173.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -5501.429 -6549.871 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn.W.201.1HROB9

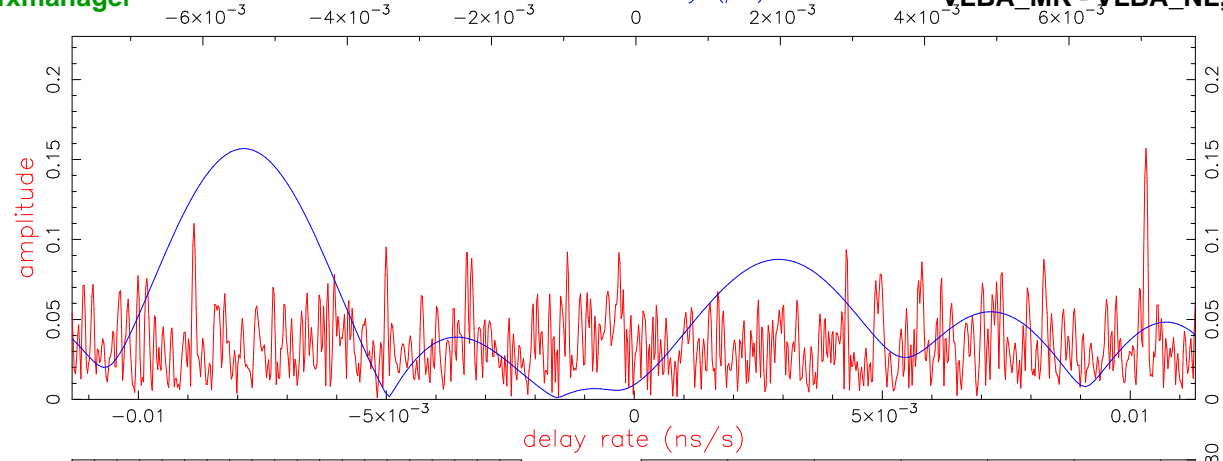
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

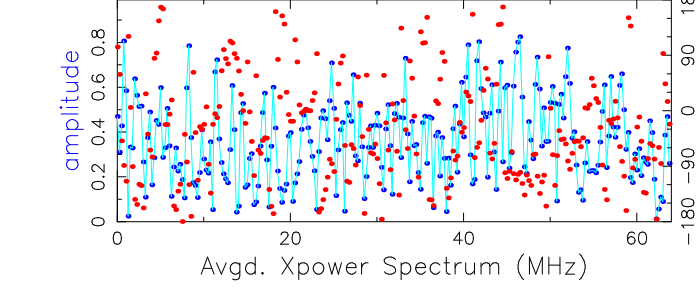
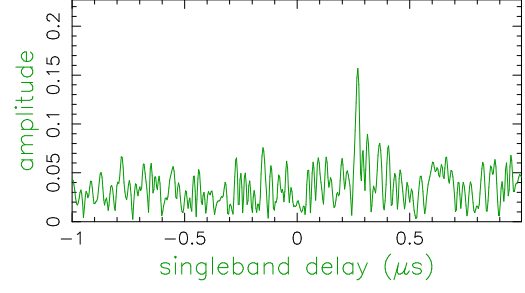
0102+584.1HROB9, No0122, mn

VLBA_MK - VLBA_NL, fgroup W, pol LR

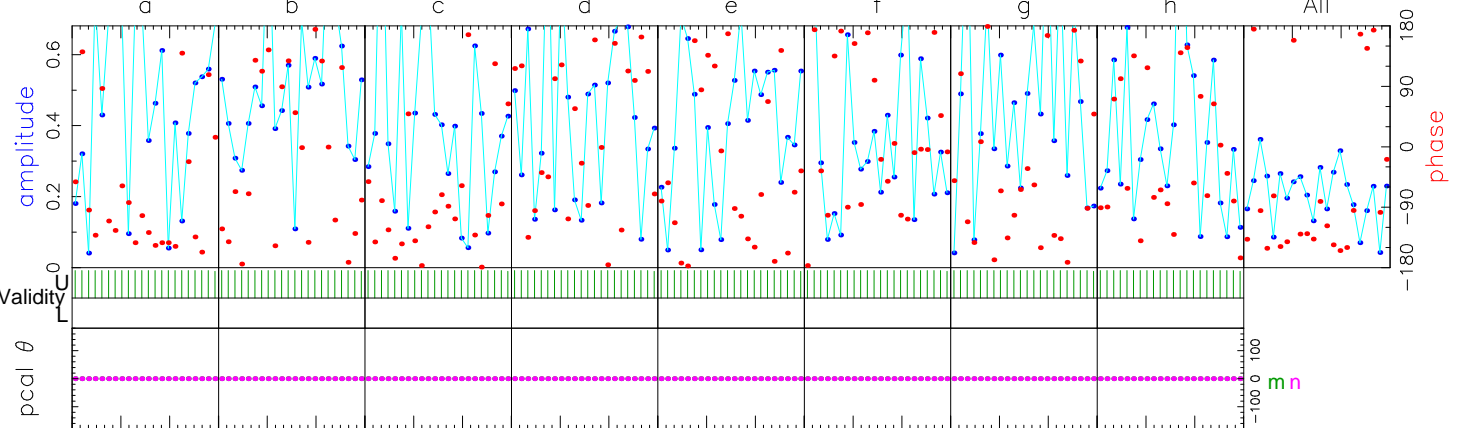
multiband delay (μ s)



Fringe quality 0
 SNR 5.8
 Int time 179.977
 Amp 0.227
 Phase -138.7
 PFD 6.5e-01
 Delays (us)
 SBD 0.269126
 MBD -0.005450
 Fringe rate (Hz)
 0.890341
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140423
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-126.7	-179.7	-120.6	179.2	-146.5	-105.4	-139.6	-128.0	Phase	-138.7
	0.4	0.2	0.4	0.2	0.3	0.1	0.3	0.1	Ampl.	0.2
	157.7	320.1	142.4	243.3	334.7	343.5	258.8	73.5	Sbd box	325.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.52479985180E+03		Apriori delay (usec)		1.52452405187E+03		Resid mbdelay (usec)		-5.45006E-03	+/- 1.9E-04
Sband delay (usec)	1.52479317812E+03		Apriori clock (usec)		1.3225204E+01		Resid sbdelay (usec)		2.69126E-01	+/- 1.5E-03
Phase delay (usec)	1.52452404739E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-4.47278E-06	+/- 6.4E-07
Delay rate (us/s)	4.98954917205E-01		Apriori rate (us/s)		4.98944581225E-01		Resid rate (us/s)		1.03360E-05	+/- 6.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.94760466418E-05		Resid phase (deg)		-138.7	+/- 19.9

ph/seg (deg) 45.4 46.7 Search (1024X32) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.8 81.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.5 28.1 Inc. seg. avg. 0.227 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.1 49.1 Inc. frq. avg. 0.219 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 356.2 el 51.1 pa 173.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -5501.429 -6549.871 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn.W.226.1HROB9

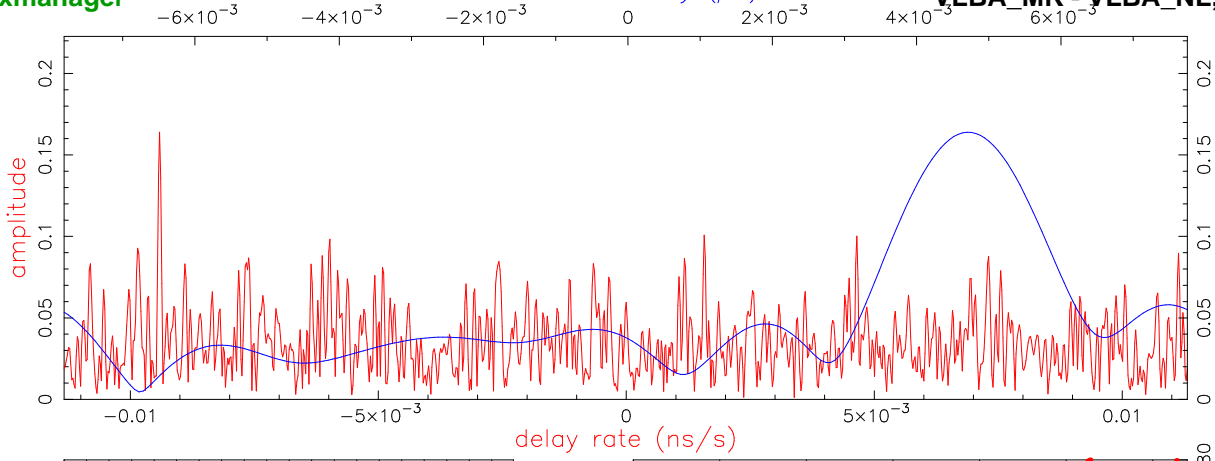
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

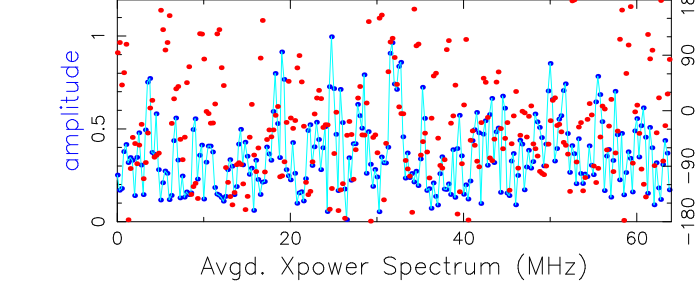
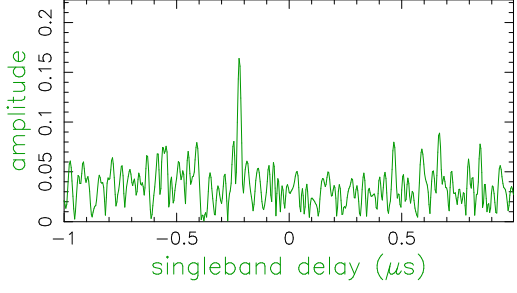
0102+584.1HROB9, No0122, mn

VLBA_MK - VLBA_NL, fgroup W, pol RL

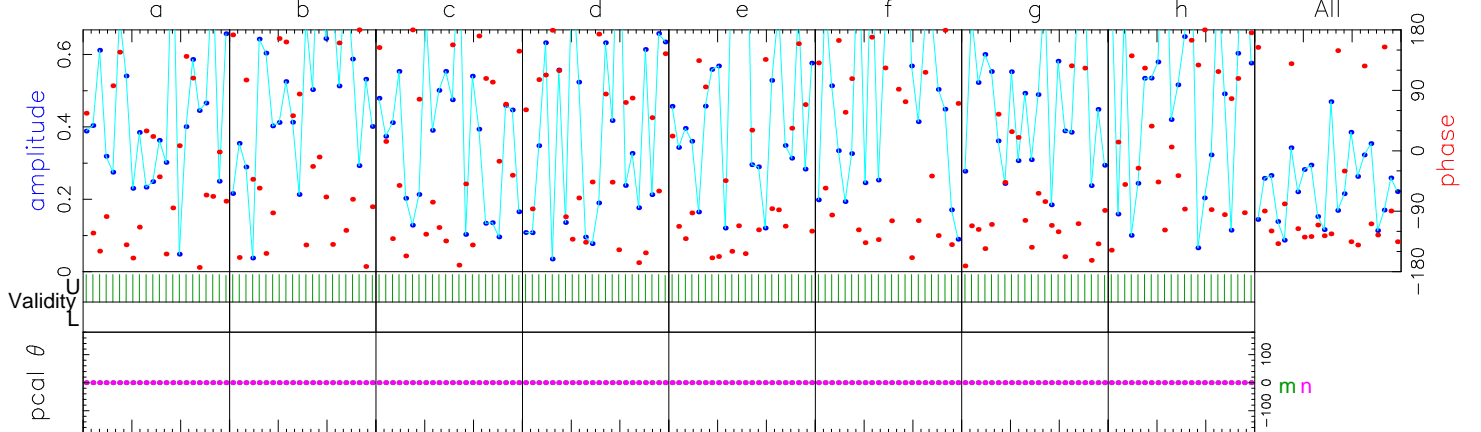
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 179.977
 Amp 0.223
 Phase -134.1
 PFD 1.8e-01
 Delays (us)
 SBD -0.221770
 MBD 0.004720
 Fringe rate (Hz) -0.811456
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140425
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-115.4	-121.8	-145.0	-178.0	-135.8	-167.1	-117.8	-116.9	Phase	-134.1
	0.2	0.3	0.2	0.1	0.3	0.2	0.3	0.2	Ampl.	0.2
	114.5	408.6	476.6	58.1	200.3	473.6	296.1	291.0	Sbd box	200.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.52431002164E+03		Apriori delay (usec)		1.52452405187E+03		Resid mbdelay (usec)		4.71977E-03	+/- 1.8E-04
Sband delay (usec)	1.52430228137E+03		Apriori clock (usec)		1.3225204E+01		Resid sbdelay (usec)		-2.21770E-01	+/- 1.4E-03
Phase delay (usec)	1.52452404754E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-4.32409E-06	+/- 6.1E-07
Delay rate (us/s)	4.98935161025E-01		Apriori rate (us/s)		4.98944581225E-01		Resid rate (us/s)		-9.42020E-06	+/- 5.9E-09
Total phase (deg)	163.9		Apriori accel (us/s/s)		-3.94760466418E-05		Resid phase (deg)		-134.1	+/- 19.0

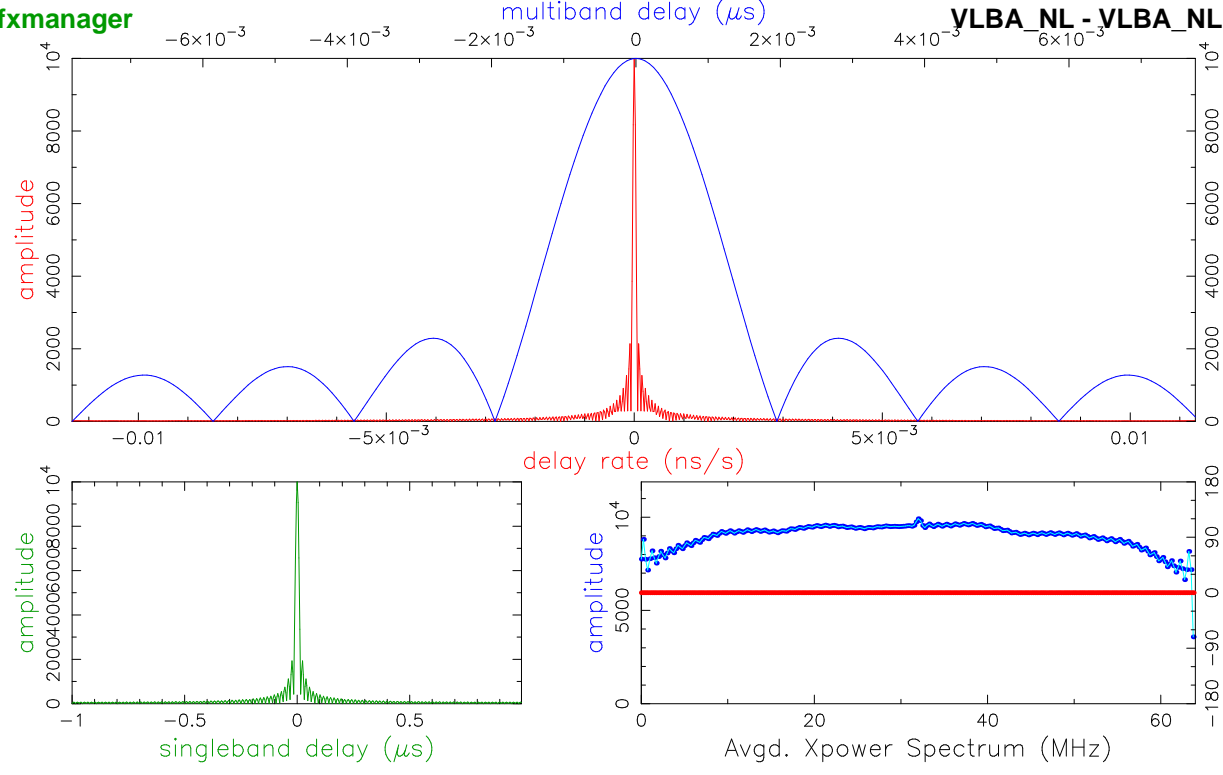
ph/seg (deg) 50.2 44.5 Search (1024X32) 0.154 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.7 77.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.4 26.8 Inc. seg. avg. 0.248 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.2 46.8 Inc. frq. avg. 0.213 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 356.2 el 51.1 pa 173.6 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -5501.429 -6549.871 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/mn.W.242.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nn

VLBA_NL - VLBA_NL, fgroup W, pol LL

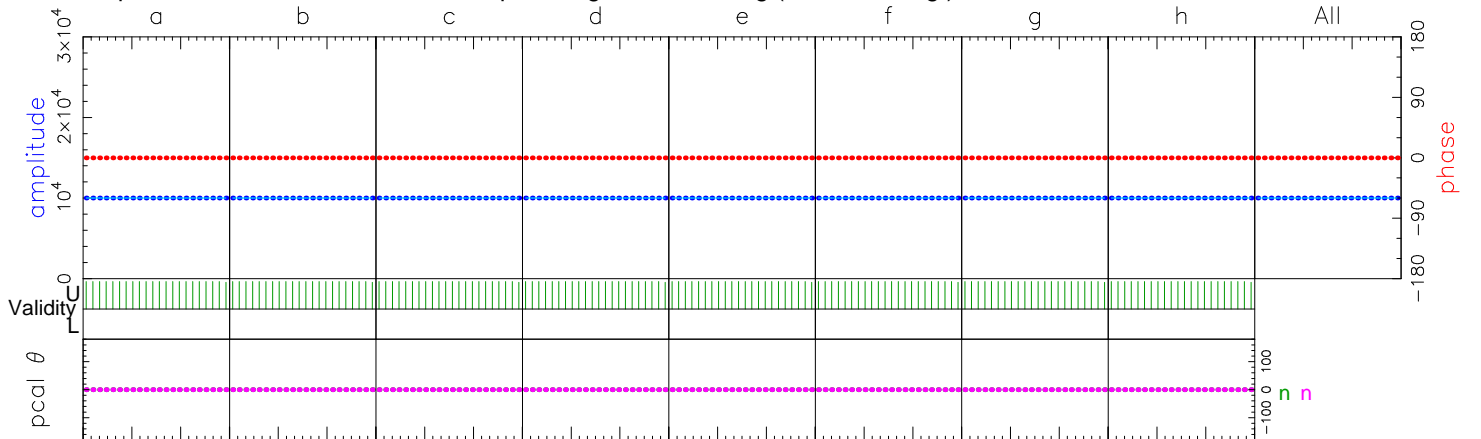


Fringe quality 9

SNR 366866.4
 Int time 179.979
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Yr:day 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140425
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00		
Total phase (deg)			0.0							
			Apriori delay (usec)						Resid mbdelay (usec)	0.00000E+00 +/- 3.0E-09
			Apriori clock (usec)						Resid sbdelay (usec)	0.00000E+00 +/- 2.3E-08
			Apriori clockrate (us/s)						Resid phdelay (usec)	0.00000E+00 +/- 1.0E-11
			Apriori rate (us/s)						Resid rate (us/s)	0.00000E+00 +/- 9.7E-14
			Apriori accel (us/s/s)						Resid phase (deg)	0.0 +/- 0.0

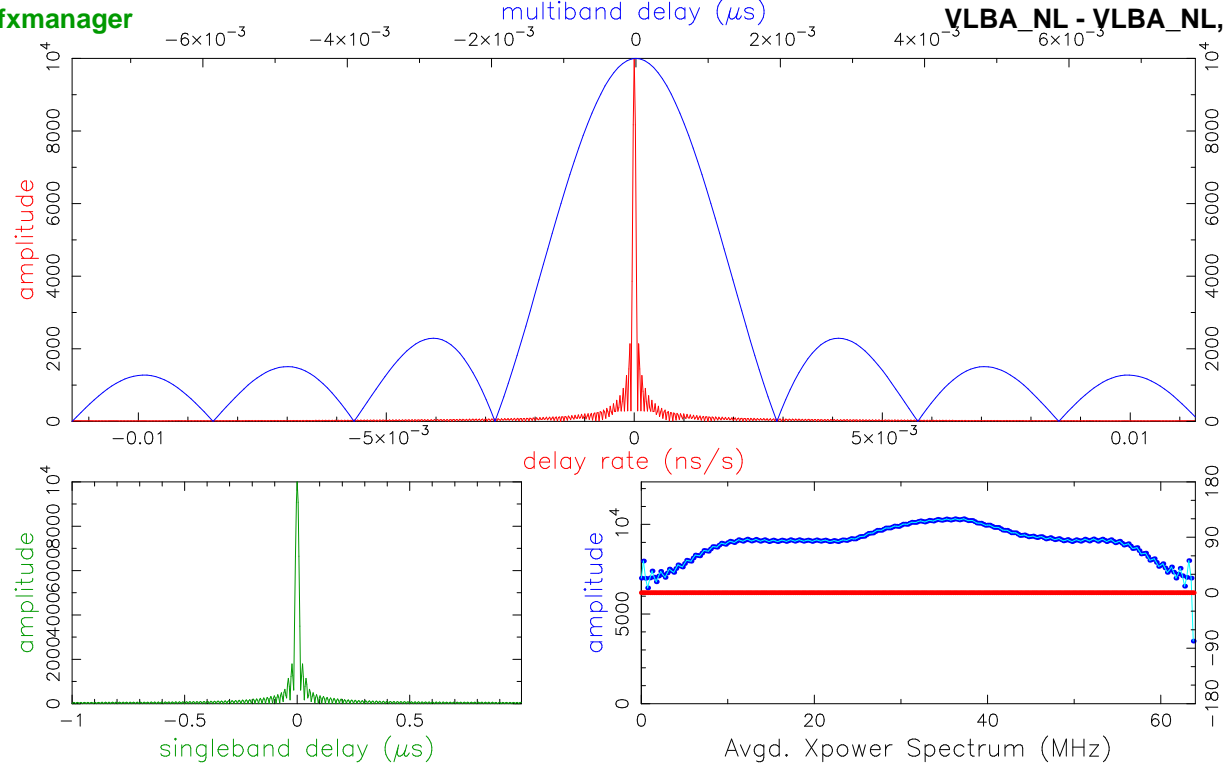
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 316.3 el 45.3 pa 80.8 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn.W.241.1HROB9 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nn

VLBA_NL - VLBA_NL, fgroup W, pol RR

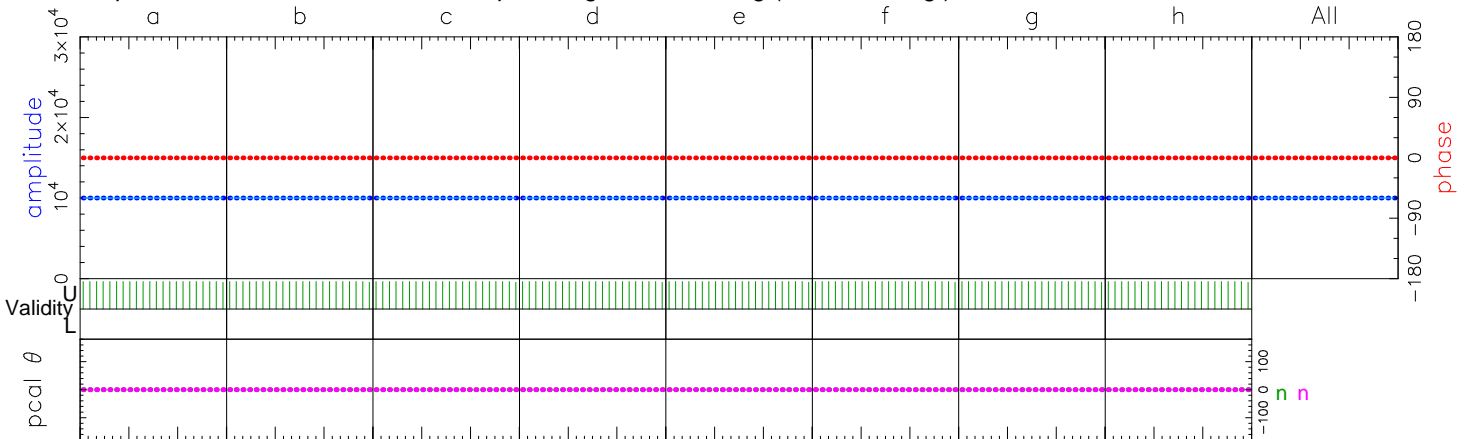


Fringe quality 9

SNR 366866.4
 Int time 179.979
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140427
 2020:247:085004
 RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

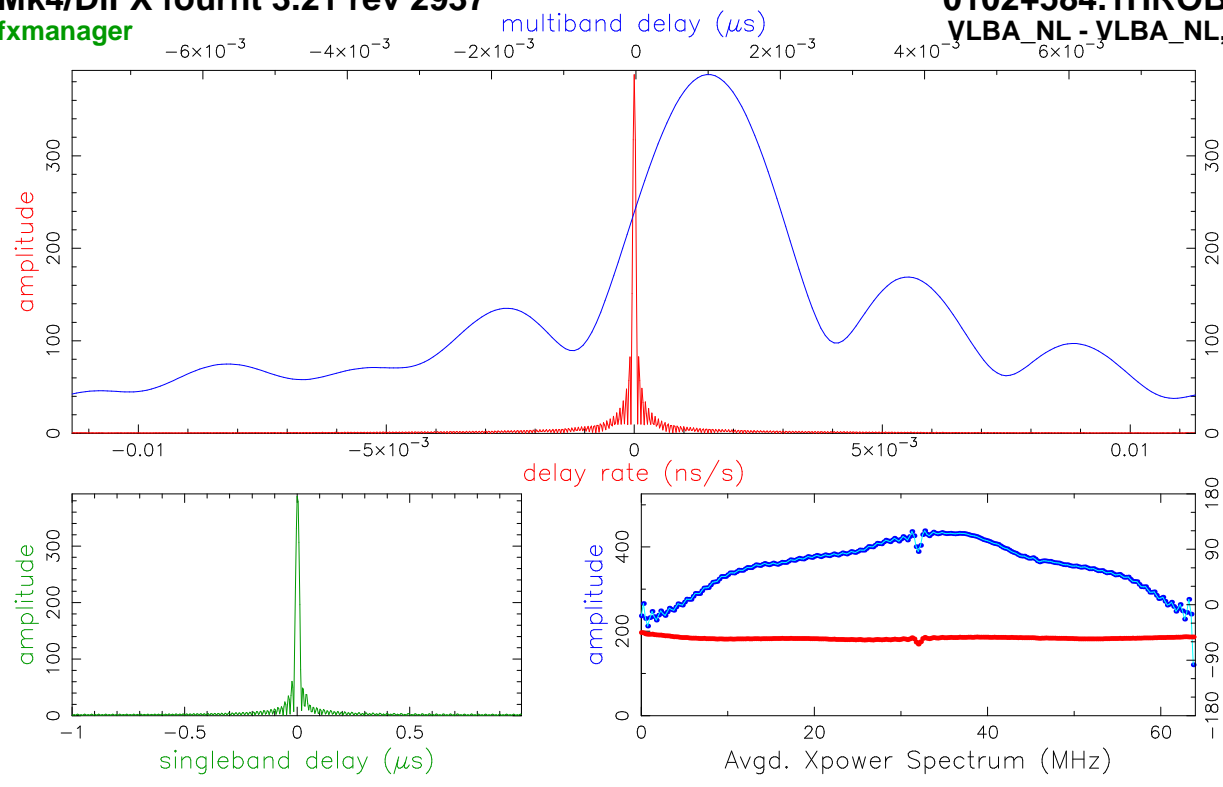


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 316.3 el 45.3 pa 80.8 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn.W.247.1HROB9

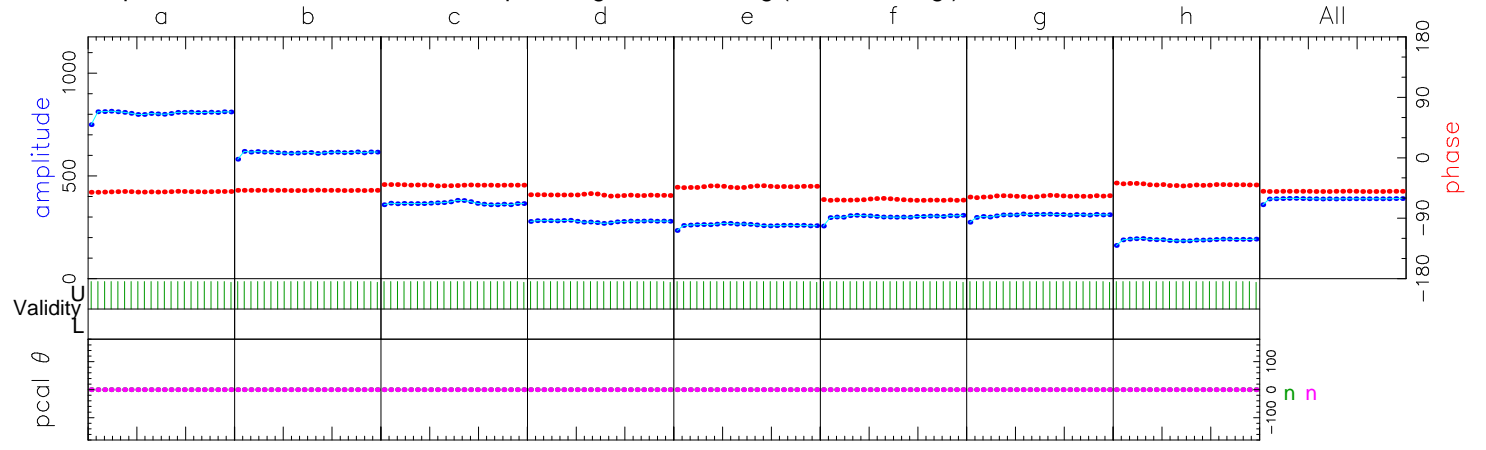


Fringe quality 7

SNR 14392.8
Int time 179.979
Amp 392.318
Phase -50.0
PFD 0.0e+00
Delays (us)
SBD 0.001410
MBD 0.001027
Fringe rate (Hz) -0.000002
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140428
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-50.6	-48.5	-40.7	-55.4	-43.0	-62.5	-57.2	-40.1	Phase	-50.0
	805.1	612.9	367.3	279.0	260.7	301.1	308.4	188.9	Ampl.	390.4
	257.8	257.1	257.1	257.1	257.6	257.2	257.5	257.1	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.02662500000E-03								Resid mbdelay (usec)	1.02663E-03 +/- 7.5E-08
Sband delay (usec)	1.40975000000E-03								Resid sbdelay (usec)	1.40975E-03 +/- 6.0E-07
Phase delay (usec)	-1.61149757097E-06								Resid phdelay (usec)	-1.61150E-06 +/- 2.6E-10
Delay rate (us/s)	-2.12567285875E-11								Resid rate (us/s)	-2.12567E-11 +/- 2.5E-12
Total phase (deg)			-50.0						Resid phase (deg)	-50.0 +/- 0.0
	RMS	Theor.	Amplitude	392.318 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.1	0.0	Search (1024X32)	387.798					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.9	0.0	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	8.9	0.0	Inc. seg. avg.	387.838					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	49.9	0.0	Inc. frq. avg.	390.424					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
n: az 316.3 el 45.3 pa 80.8			n: az 316.3 el 45.3 pa 80.8						nlags: 256 t_cohere infinite	simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn.1HROB9							Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn.W.257.1HROB9

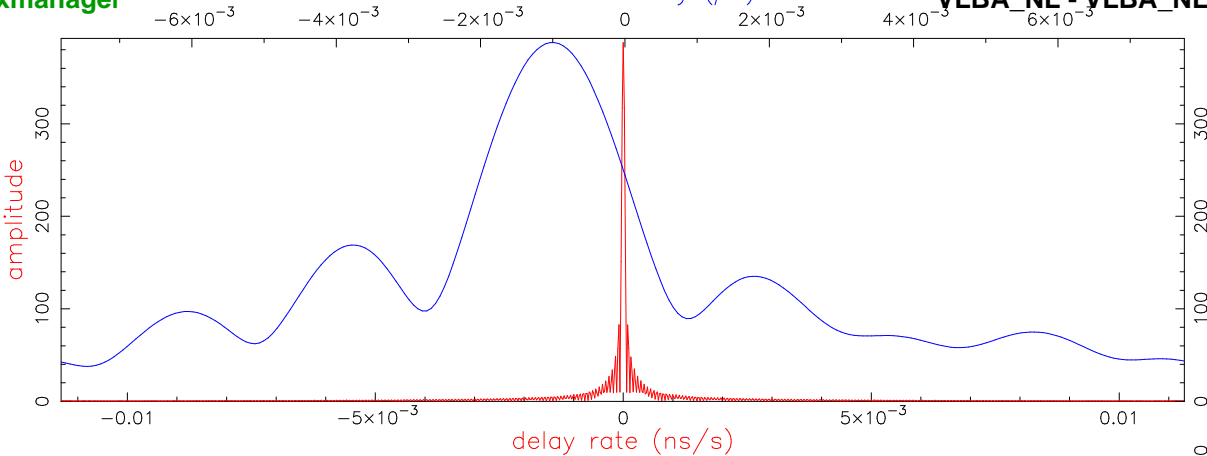
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nn

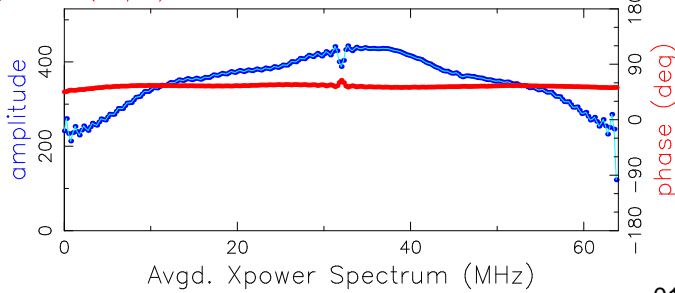
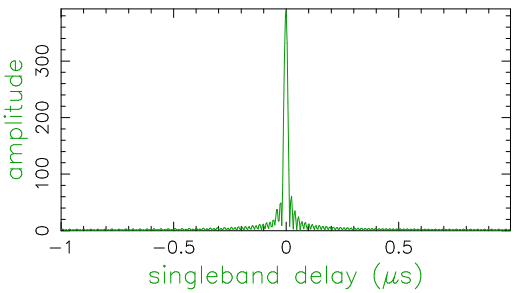
VLBA_NL - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)



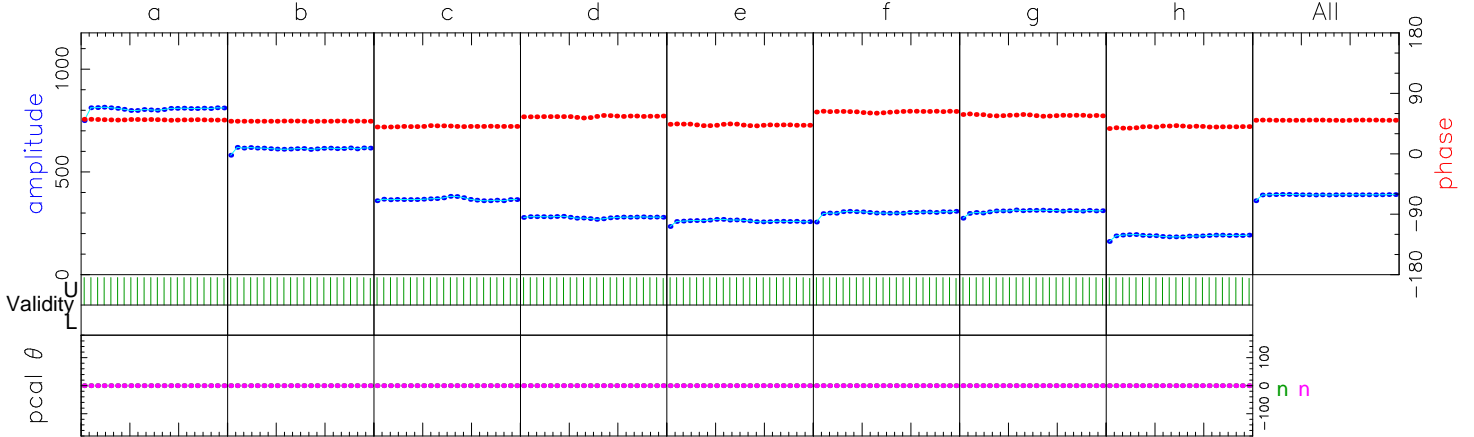
Fringe quality 7

SNR 14392.8
 Int time 179.979
 Amp 392.318
 Phase 50.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001410
 MBD -0.001027
 Fringe rate (Hz)
 0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140430
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

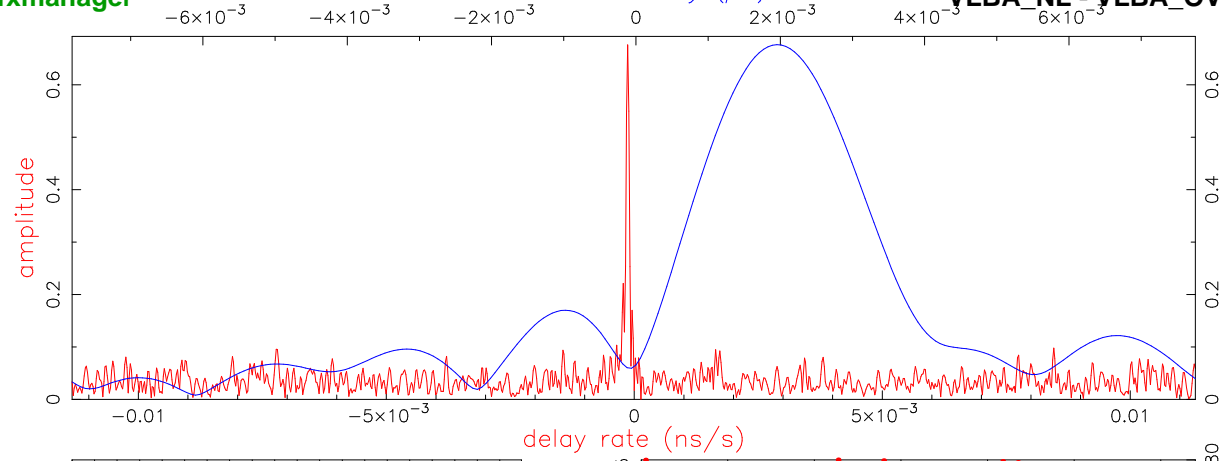
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	390.4	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	256.6	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
Group delay (usec)(sbd)	-1.02662500000E-03										
Sband delay (usec)	-1.40975000000E-03										
Phase delay (usec)	1.61149757081E-06										
Delay rate (us/s)	2.12567285875E-11										
Total phase (deg)			50.0								
				Apriori delay (usec)	0.00000000000E+00				Resid mbdelay (usec)	-1.02663E-03	+/- 7.5E-08
				Apriori clock (usec)	0.0000000E+00				Resid sbdelay (usec)	-1.40975E-03	+/- 6.0E-07
				Apriori clockrate (us/s)	0.0000000E+00				Resid phdelay (usec)	1.61150E-06	+/- 2.6E-10
				Apriori rate (us/s)	0.00000000000E+00				Resid rate (us/s)	2.12567E-11	+/- 2.5E-12
				Apriori accel (us/s/s)	0.00000000000E+00				Resid phase (deg)	50.0	+/- 0.0

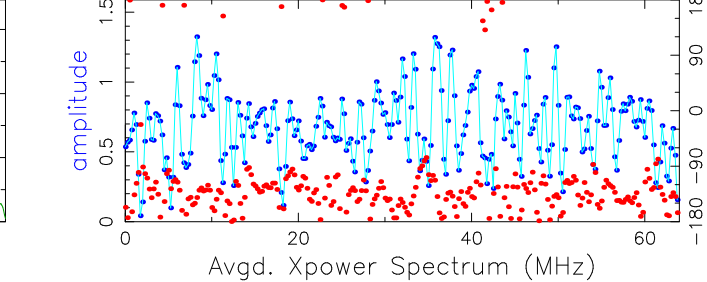
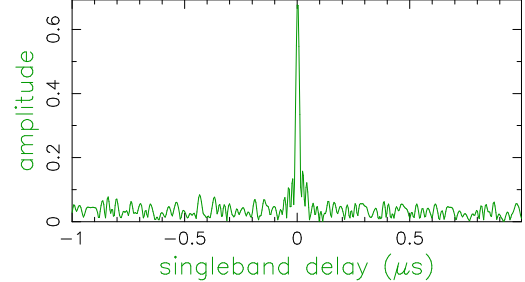
	RMS	Theor.	Amplitude	392.318 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.1	0.0	Search (1024X32)	387.798	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.9	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	8.9	0.0	Inc. seg. avg.	387.838	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
amp/frq (%)	49.9	0.0	Inc. frq. avg.	390.424	Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
n: az 316.3 el 45.3 pa 80.8			n: az 316.3 el 45.3 pa 80.8		u,v (fr/asec) 0.000 0.000	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn..1HROB9		Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nn.W.271.1HROB9	simultaneous interpolator

multiband delay (μ s)



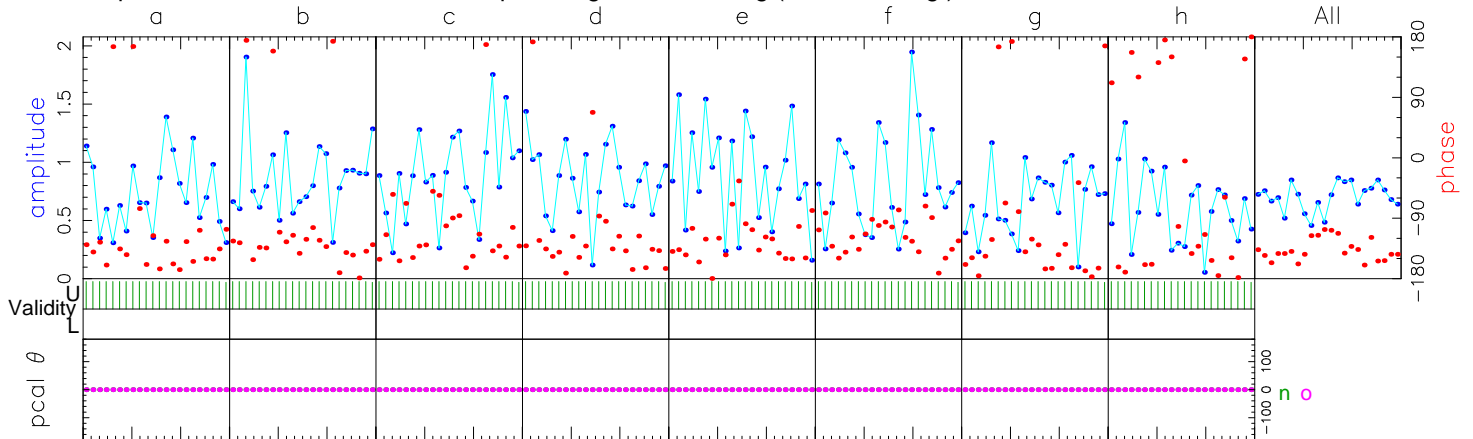
Fringe quality 9

SNR 25.4
Int time 179.976
Amp 0.692
Phase -137.3
PFD 0.0e+00
Delays (us)
SBD 0.001916
MBD 0.002009
Fringe rate (Hz)
-0.010767
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140428
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



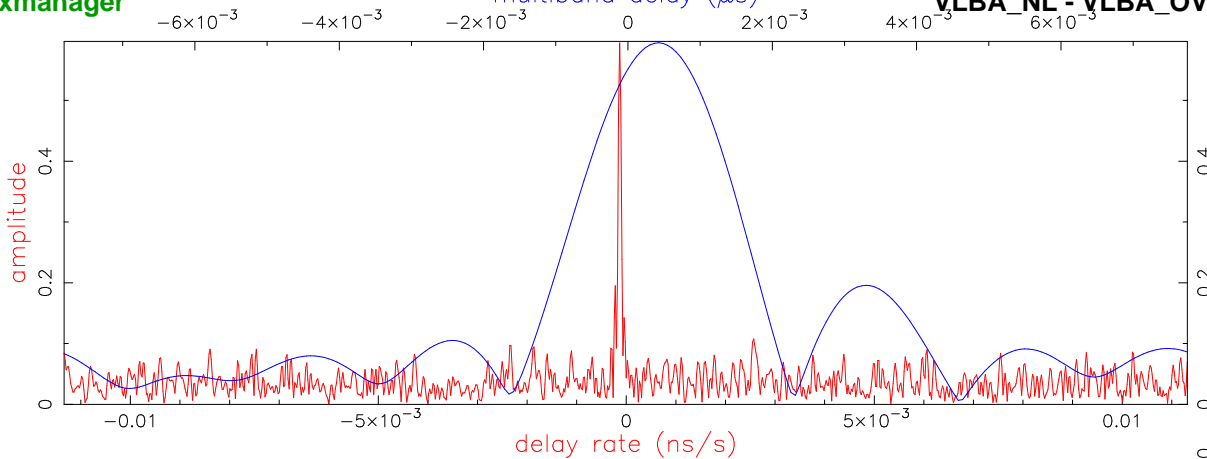
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.48915266288E+03	Apriori delay (usec)	-2.48915467174E+03	Resid mbdelay (usec)	2.00886E-03	+/-	4.3E-05
Sband delay (usec)	-2.48915275549E+03	Apriori clock (usec)	-2.1271305E+01	Resid sbdelay (usec)	1.91625E-03	+/-	3.4E-04
Phase delay (usec)	-2.48915467617E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	-4.42629E-06	+/-	1.5E-07
Delay rate (us/s)	-1.31213648292E-01	Apriori rate (us/s)	-1.31213523292E-01	Resid rate (us/s)	-1.24999E-07	+/-	1.4E-09
Total phase (deg)	-289.8	Apriori accel (us/s/s)	1.89953079872E-05	Resid phase (deg)	-137.3	+/-	4.5

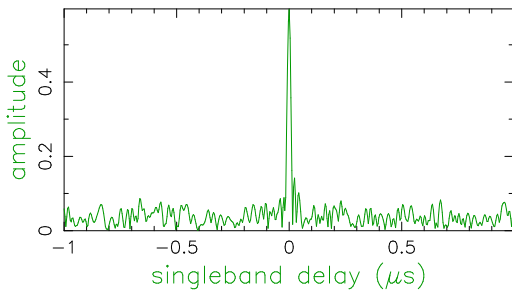
ph/seg (deg)	16.2	Theor.	10.6	Amplitude	0.692 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	16.9		18.5	Search (1024X32)	0.659	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	17.5		6.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	16.0		11.1	Inc. seg. avg.	0.692	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.692	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

multiband delay (μ s)

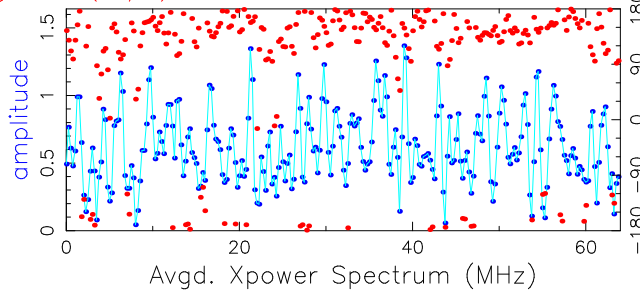
Fringe quality 9



SNR 21.9
Int time 179.976
Amp 0.597
Phase 134.2
PFD 0.0e+00
Delays (us)
SBD -0.000810
MBD 0.000405
Fringe rate (Hz)
-0.011070
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

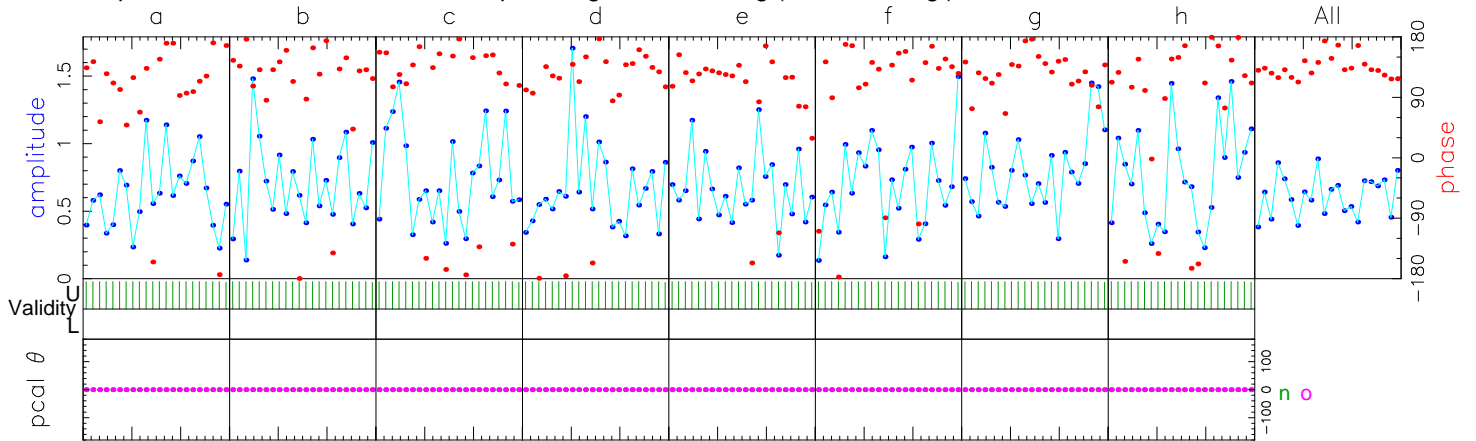


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140430
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.48915426710E+03									
Sband delay (usec)	-2.48915548199E+03									
Phase delay (usec)	-2.48915466741E+03									
Delay rate (us/s)	-1.31213651803E-01									
Total phase (deg)			-18.3							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
nlags: 256										
t_cohere infinite										
simultaneous interpolator										

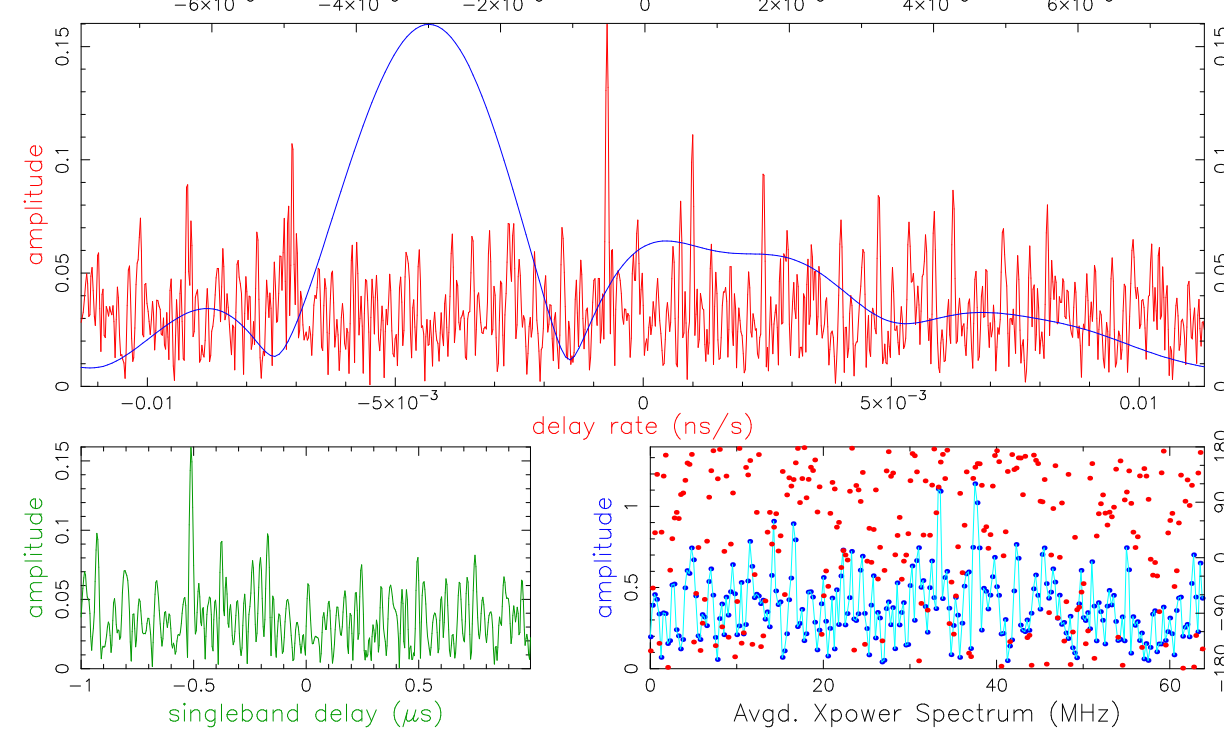
ph/seg (deg) 16.4 12.3 Search (1024X32) 0.588 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 24.7 21.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 11.0 7.4 Inc. seg. avg. 0.603 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 9.9 12.9 Inc. frq. avg. 0.598 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 316.3 el 45.3 pa 80.8 o: az 321.9 el 55.7 pa 109.9 u,v (fr/asec) 1454.000 2711.810 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/no..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/no.W.276.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, no

VLBA_NL - VLBA_OV, fgroup W, pol LR

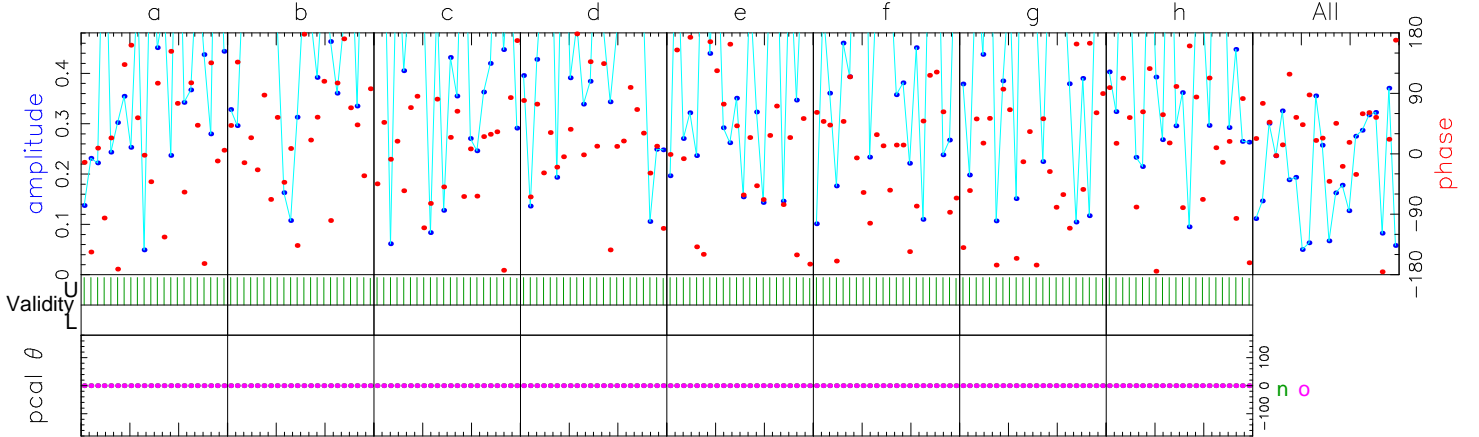


Fringe quality 0

SNR 5.9
 Int time 179.976
 Amp 0.160
 Phase 33.7
 PFD 4.3e-01
 Delays (us)
 SBD -0.511284
 MBD -0.002972
 Fringe rate (Hz)
 -0.063400
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140432
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-2.48967326922E+03								Resid mbdelay (usec)	-2.97248E-03 +/- 1.8E-04
Sband delay (usec)	-2.48966595524E+03								Resid sbdelay (usec)	-5.11284E-01 +/- 1.5E-03
Phase delay (usec)	-2.48915467065E+03								Resid phdelay (usec)	1.08825E-06 +/- 6.3E-07
Delay rate (us/s)	-1.31214259298E-01								Resid rate (us/s)	-7.36006E-07 +/- 6.1E-09
Total phase (deg)			-118.8						Resid phase (deg)	33.7 +/- 19.5

ph/seg (deg) 56.5 45.8
 amp/seg (%) 70.3 79.9
 ph/frq (deg) 30.3 27.6
 amp/frq (%) 38.3 48.2

RMS Theor. Amplitude 0.160 +/- 0.027
 Search (1024X32) 0.157
 Interp. 0.000
 Inc. seg. avg. 0.155
 Inc. frq. avg. 0.154

pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

n: az 316.3 el 45.3 pa 80.8 o: az 321.9 el 55.7 pa 109.9 u,v (fr/asec) 1454.000 2711.810 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/no..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/no.W.292.1HROB9

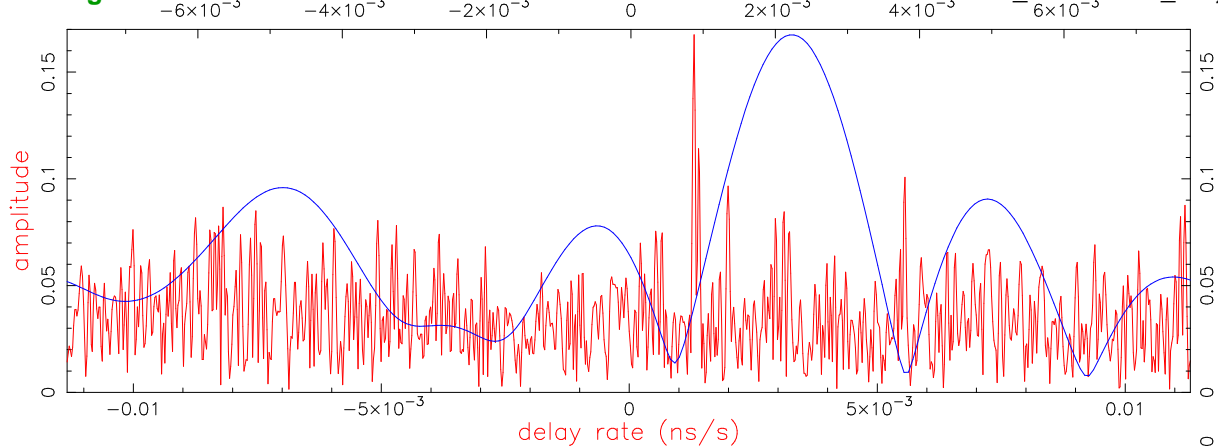
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, no

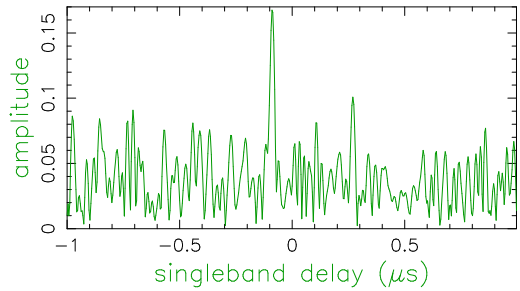
VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

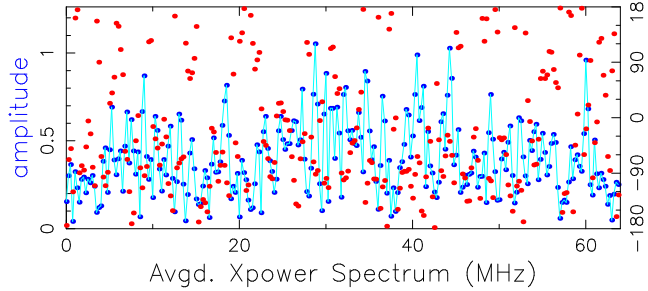


Fringe quality 0

SNR 6.2
 Int time 179.976
 Amp 0.170
 Phase -40.7
 PFD 7.1e-02
 Delays (us)
 SBD -0.088226
 MBD 0.002231
 Fringe rate (Hz)
 0.112477
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

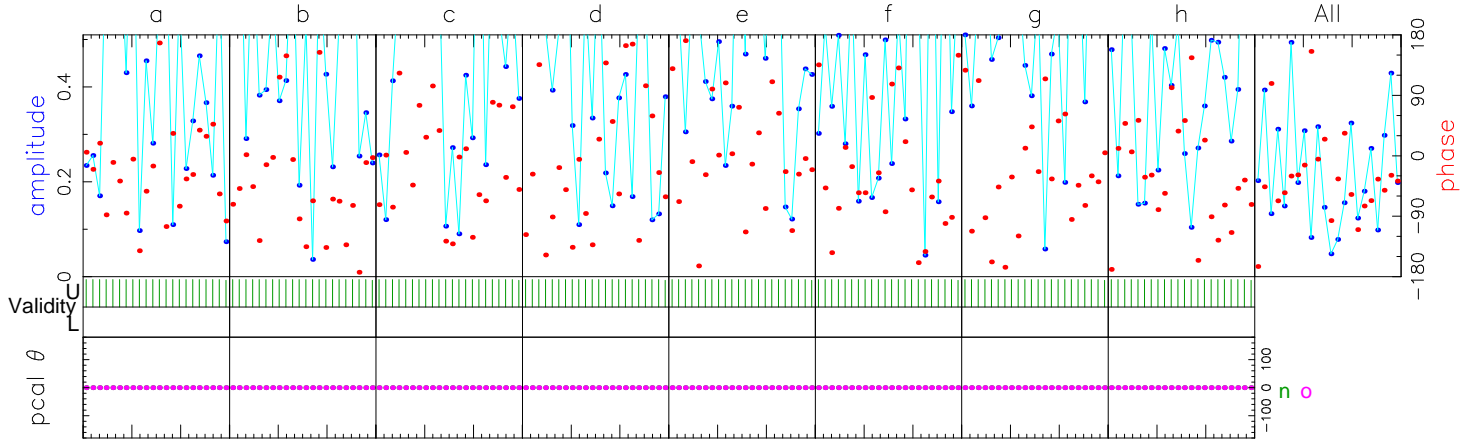


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140434
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

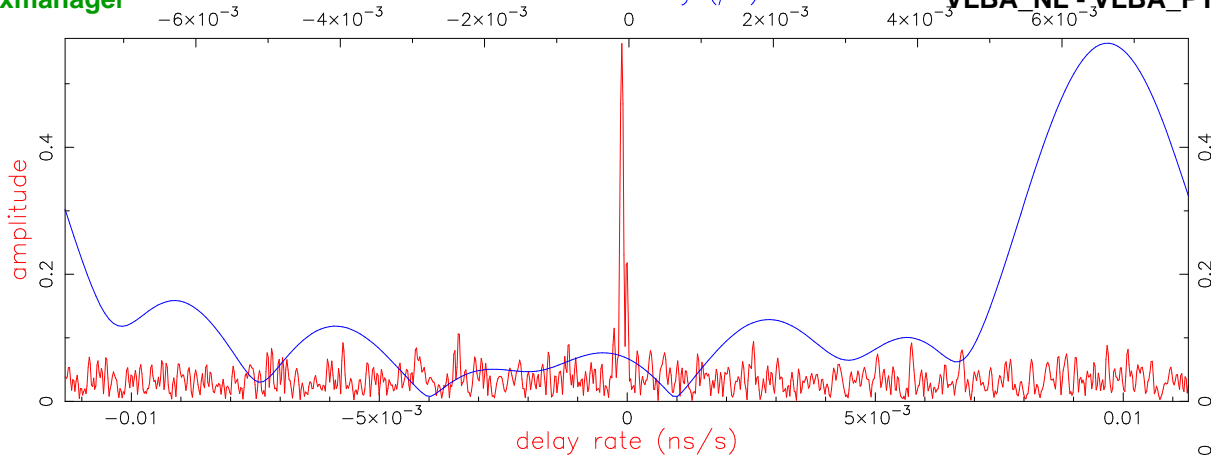


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-2.48924619059E+03				-2.48915467174E+03				2.23115E-03	+/- 1.7E-04
Sband delay (usec)	-2.48924289824E+03				-2.1271305E+01				-8.82265E-02	+/- 1.4E-03
Phase delay (usec)	-2.48915467305E+03				6.0000003E-07				-1.31292E-06	+/- 6.0E-07
Delay rate (us/s)	-1.31212217544E-01				-1.31213523292E-01				1.30575E-06	+/- 5.7E-09
Total phase (deg)			-193.2		1.89953079872E-05				-40.7	+/- 18.5
	RMS	Theor.	Amplitude	0.170 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	63.1	43.3	Search (1024X32)	0.164	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	77.6	75.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	44.7	26.1	Inc. seg. avg.	0.176	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	33.0	45.6	Inc. frq. avg.	0.188	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

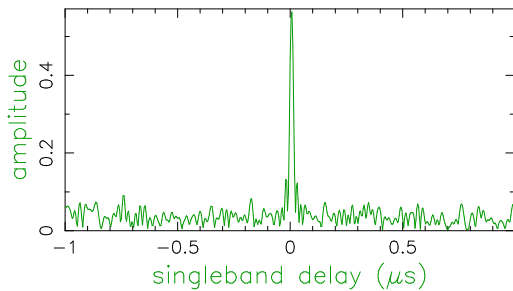
n: az 316.3 el 45.3 pa 80.8 o: az 321.9 el 55.7 pa 109.9 u,v (fr/asec) 1454.000 2711.810 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/no..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/no.W.306.1HROB9

multiband delay (μ s)

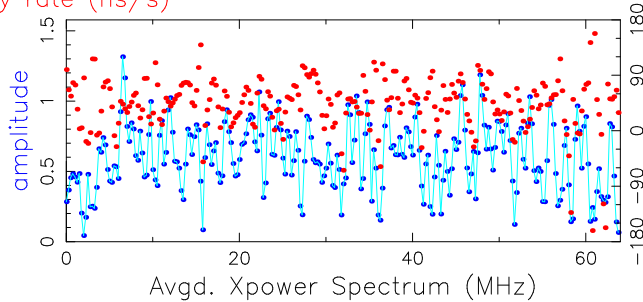
Fringe quality 9



SNR 21.0
Int time 179.978
Amp 0.571
Phase 44.8
PFD 0.0e+00
Delays (us)
SBD 0.006264
MBD 0.006581
Fringe rate (Hz)
-0.009424
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

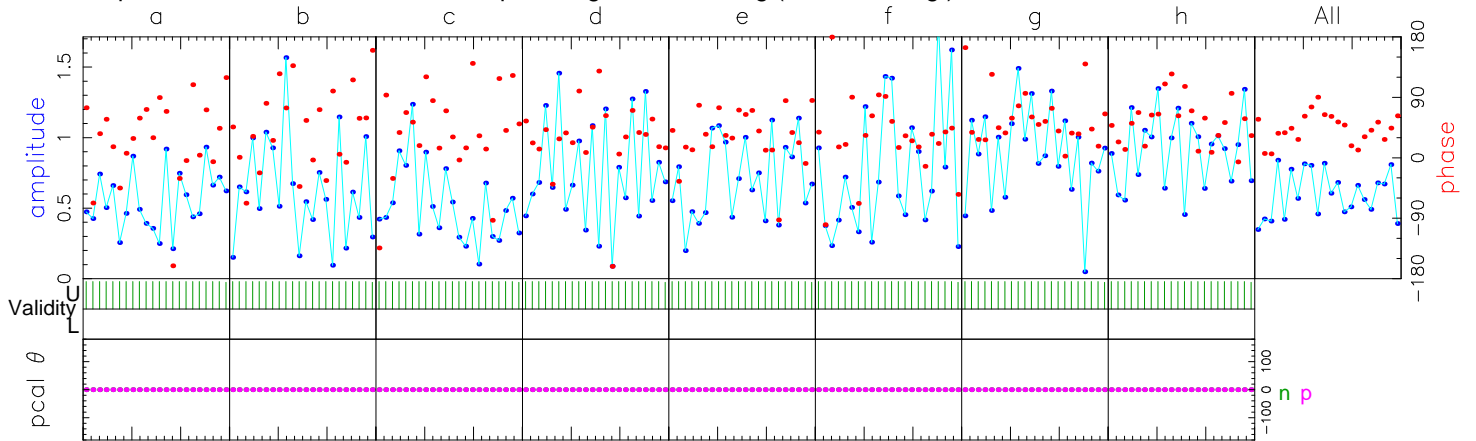


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140428
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-7.72537008495E+02	Apriori delay (usec)	-7.72543589278E+02	Resid mbdelay (usec)	6.58078E-03	+/-	5.2E-05
Sband delay (usec)	-7.72537325778E+02	Apriori clock (usec)	8.4949493E-02	Resid sbdelay (usec)	6.26350E-03	+/-	4.1E-04
Phase delay (usec)	-7.72543587834E+02	Apriori clockrate (us/s)	1.0000003E-07	Resid phdelay (usec)	1.44412E-06	+/-	1.8E-07
Delay rate (us/s)	-3.42550242543E-02	Apriori rate (us/s)	-3.42549148473E-02	Resid rate (us/s)	-1.09407E-07	+/-	1.7E-09
Total phase (deg)	-236.2	Apriori accel (us/s/s)	1.39619570722E-05	Resid phase (deg)	44.8	+/-	5.5

ph/seg (deg)	21.7	Theor.	12.8	Amplitude	0.571 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	28.3		22.4	Search (1024X32)	0.554	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	8.5		7.7	Inc. seg. avg.	0.587	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.7		13.5	Inc. frq. avg.	0.563	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

n: az 316.3 el 45.3 pa 80.8 p: az 321.8 el 48.3 pa 101.9 u,v (fr/asec) 386.517 2262.571 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/np..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/np.W.252.1HROB9

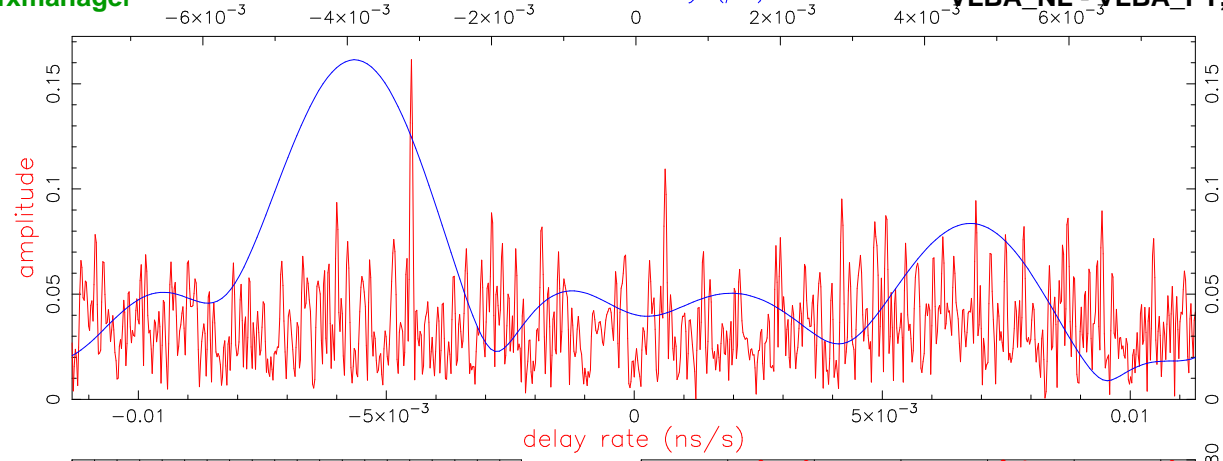
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

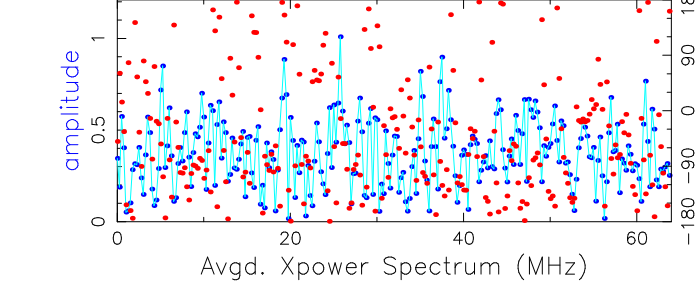
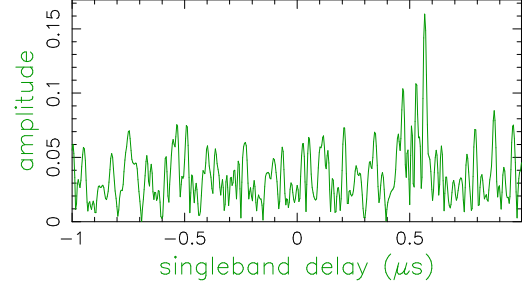
0102+584.1HROB9, No0122, np

VLBA_NL - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

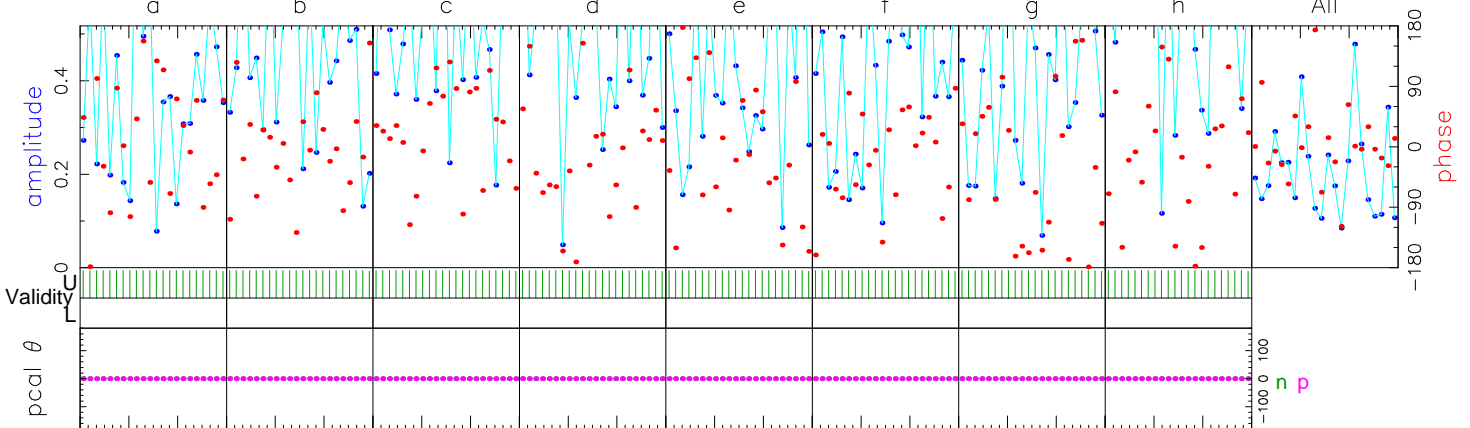


Fringe quality 0
 SNR 5.9
 Int time 179.978
 Amp 0.173
 Phase -1.7
 PFD 3.3e-01
 Delays (us)
 SBD 0.566689
 MBD -0.003894
 Fringe rate (Hz)
 -0.388515
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140432
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.71969358531E+02									
Sband delay (usec)	-7.71976900278E+02									
Phase delay (usec)	-7.72543589333E+02									
Delay rate (us/s)	-3.42594251184E-02									
Total phase (deg)			-282.6							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	57.4	45.4								
Theor.										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	57.4	45.4								
amp/seg (%)	68.3	79.2								
ph/frq (deg)	46.0	27.3								
amp/frq (%)	53.4	47.7								
n: az 316.3 el 45.3 pa 80.8										
p: az 321.8 el 48.3 pa 101.9										
u, v (fr/asec) 386.517 2262.571										
Control file: cf_1234_gmva										
Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/np..1HROB9										
Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/np.W.289.1HROB9										

simultaneous interpolator

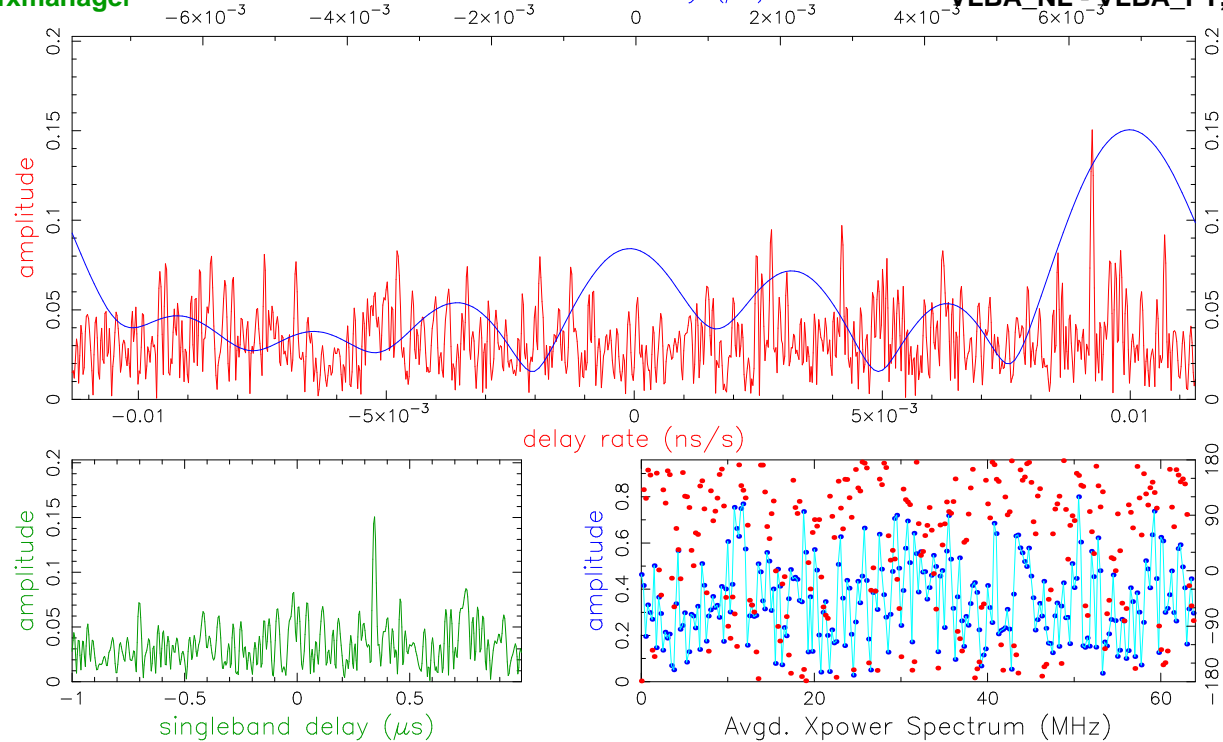
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, np

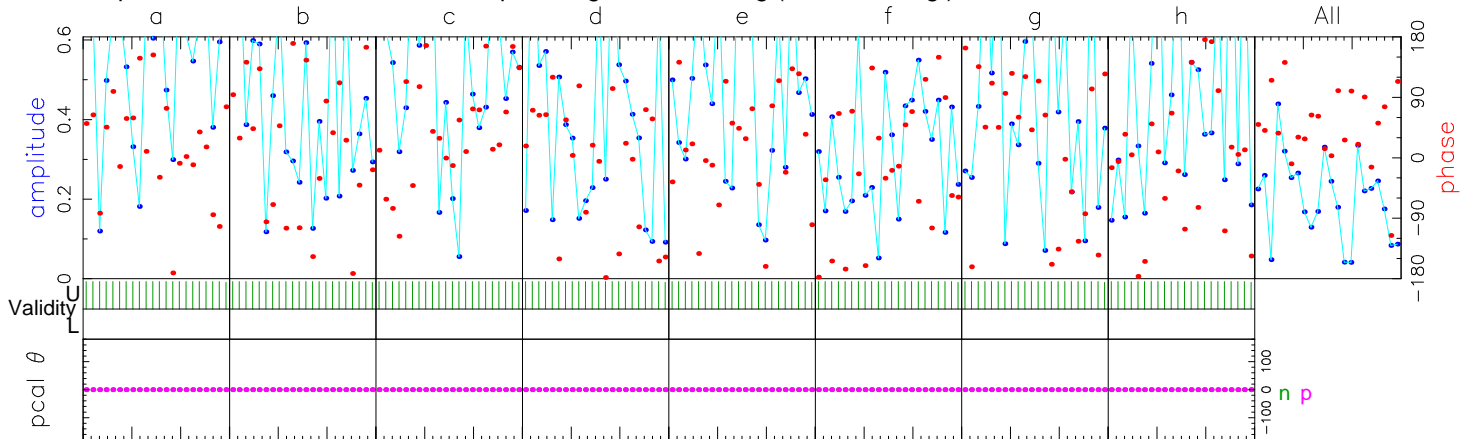
VLBA_NL - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)



Fringe quality 0
 SNR 5.6
 Int time 179.978
 Amp 0.203
 Phase 43.2
 PFD 9.6e-01
 Delays (us)
 SBD 0.342659
 MBD 0.006799
 Fringe rate (Hz) 0.796815
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140435
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)	-7.72208665493E+02				-7.72543589278E+02				6.79878E-03	+/- 2.0E-04	
Sband delay (usec)	-7.72200930528E+02				8.4949493E-02				3.42659E-01	+/- 1.5E-03	
Phase delay (usec)	-7.72543587886E+02				1.0000003E-07				1.39174E-06	+/- 6.6E-07	
Delay rate (us/s)	-3.42456646177E-02				-3.42549148473E-02				9.25023E-06	+/- 6.4E-09	
Total phase (deg)			-237.8		1.39619570722E-05				43.2	+/- 20.6	
RMS	54.5	48.3			0.203 +/- 0.036						
ph/seg (deg)	54.5	48.3			0.147						
amp/seg (%)	76.1	84.4			0.000						
ph/frq (deg)	38.5	29.1			0.202						
amp/frq (%)	47.1	50.9			0.202						
n: az 316.3 el 45.3 pa 80.8	p: az 321.8 el 48.3 pa 101.9		u, v (fr/asec) 386.517 2262.571		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/np..1HROB9		Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/np.W.315.1HROB9		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		sb window (us) -1.000 1.000		
						Data rate (Mb/s): 2048		nlags: 256 t_cohere infinite		mb window (us) -0.008 0.008	
								Resid mbdelay (usec)		dr window (ns/s) -0.011 0.011	
								Resid sbdelay (usec)		ion window (TEC) 0.00 0.00	
								Resid phdelay (usec)			
								Resid rate (us/s)			
								Resid phase (deg)			

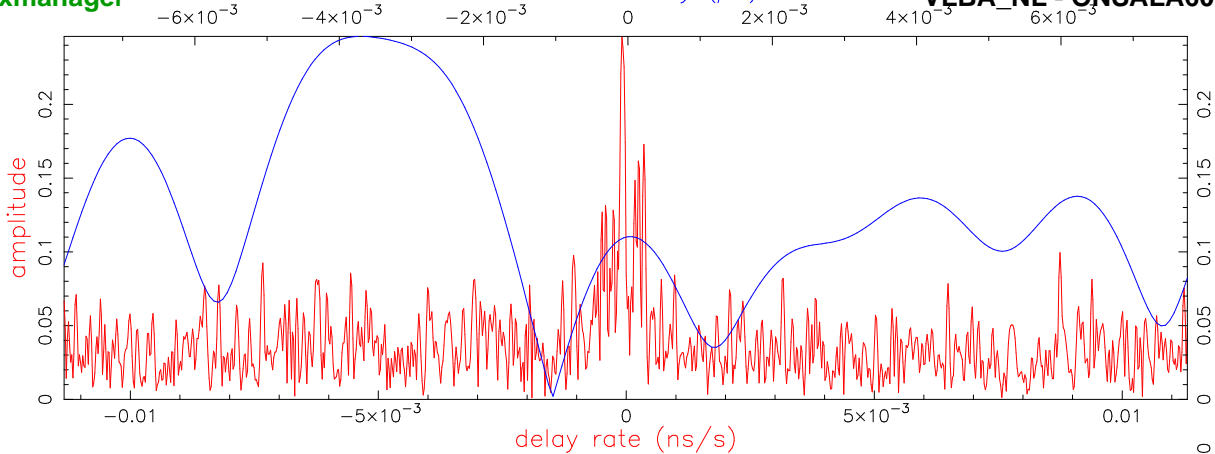
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nX

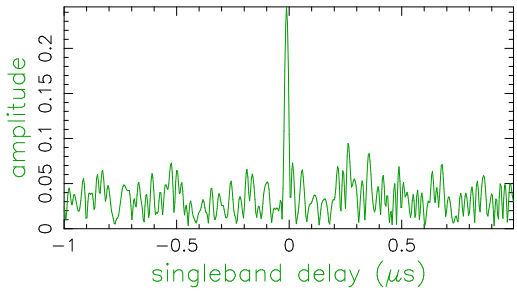
VLBA_NL - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

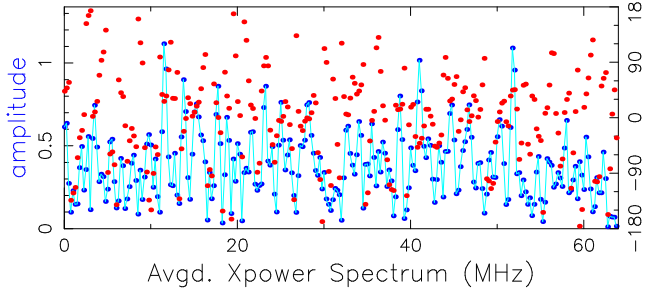


Fringe quality 9

SNR 9.0
 Int time 179.968
 Amp 0.246
 Phase -79.4
 PFD 3.4e-11
 Delays (us)
 SBD -0.011591
 MBD -0.003714
 Fringe rate (Hz)
 -0.008154
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

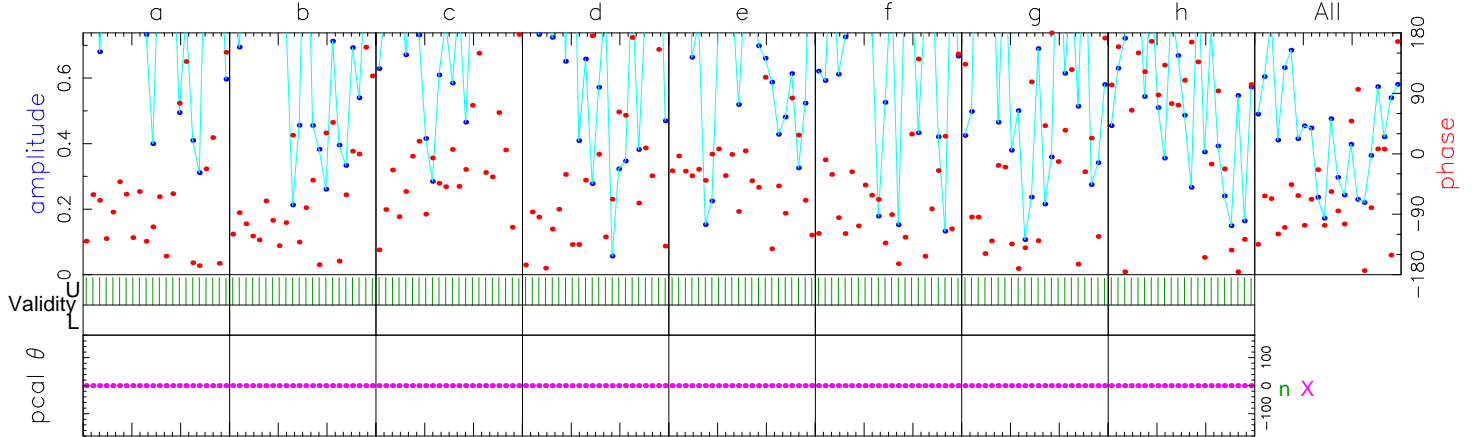


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140427
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.1	-104.0	-33.4	-110.2	-29.4	-82.3	-100.9	122.1	Phase	-79.4
	0.5	0.4	0.4	0.3	0.5	0.4	0.2	0.3	Ampl.	0.4
	253.1	253.1	254.0	253.5	253.7	253.3	418.2	251.7	Sbd box	254.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	5.70782267687E+03	Apriori delay (usec)	5.70784201579E+03	Resid mbdelay (usec)	-3.71392E-03	+/-	1.2E-04
Sband delay (usec)	5.70783042529E+03	Apriori clock (usec)	-4.8160458E+01	Resid sbdelay (usec)	-1.15905E-02	+/-	9.5E-04
Phase delay (usec)	5.70784201323E+03	Apriori clockrate (us/s)	-2.8000009E-08	Resid phdelay (usec)	-2.56182E-06	+/-	4.1E-07
Delay rate (us/s)	-5.05530825716E-01	Apriori rate (us/s)	-5.05530731054E-01	Resid rate (us/s)	-9.46619E-08	+/-	3.9E-09
Total phase (deg)	6.9	Apriori accel (us/s/s)	-4.75933808770E-05	Resid phase (deg)	-79.4	+/-	12.7

ph/seg (deg)	68.2	Theor.	29.8	Amplitude	0.246 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	102.0	Search (1024X32)	0.244	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	72.9	Inc. seg. avg.	0.387	Inc. frq. avg.	0.363	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	67.3	Inc. frq. avg.	0.363	u,v (fr/asec)	5504.772 -6944.289	Sample rate(MISamp/s): 128	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	

n: az 316.3 el 45.3 pa 80.8 X: az 355.3 el 26.1 pa 4.8 u,v (fr/asec) 5504.772 -6944.289 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX.W.248.1HROB9

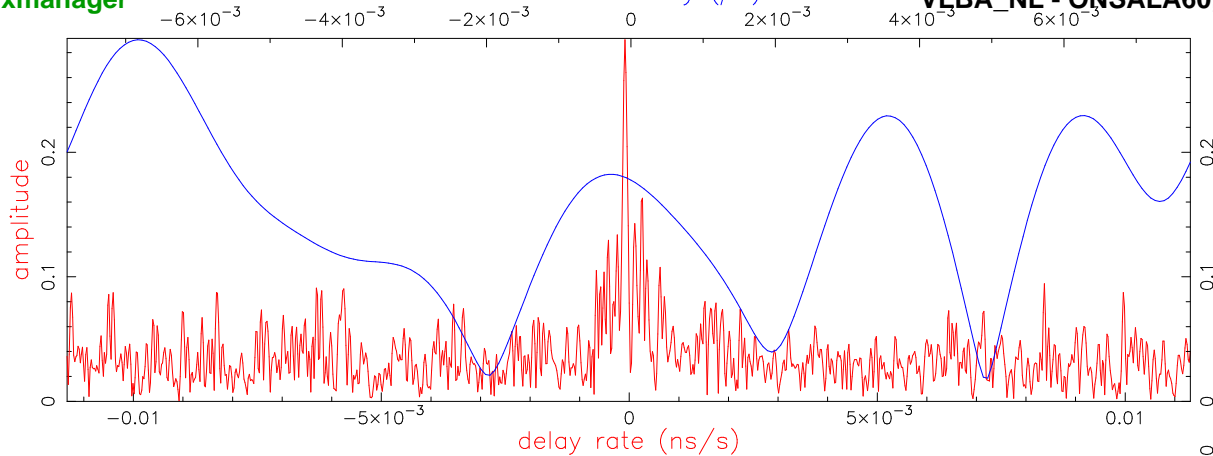
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nX

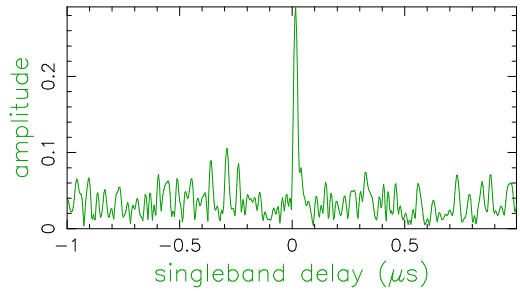
VLBA_NL - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

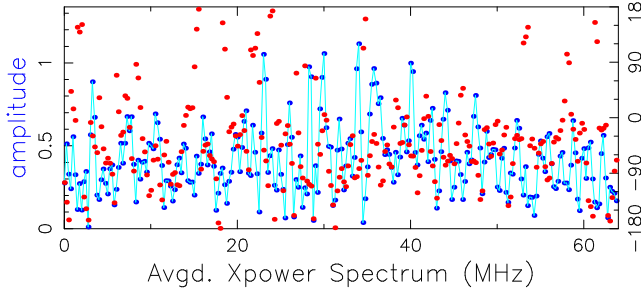


Fringe quality 9

SNR 10.7
 Int time 179.968
 Amp 0.291
 Phase -166.1
 PFD 2.5e-18
 Delays (us)
 SBD 0.014766
 MBD -0.006813
 Fringe rate (Hz)
 -0.008467
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

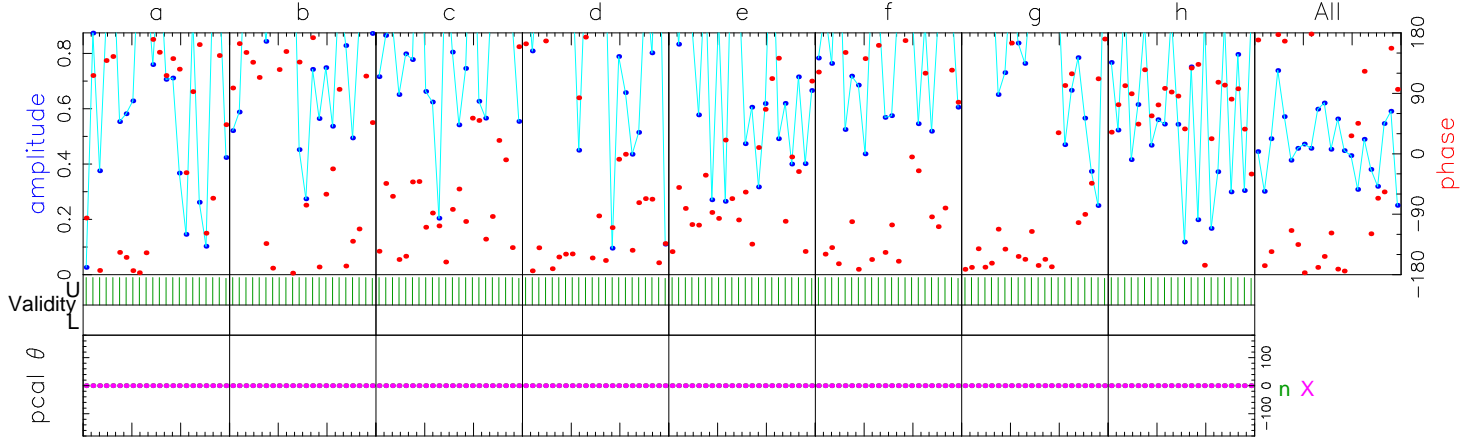


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140429
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0				
n	1000	1000	1000	1000	1000	1000	1000	1000				
X	1000	1000	1000	1000	1000	1000	1000	1000				
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
n	1000	1000	1000	1000	1000	1000	1000	1000				
X	1000	1000	1000	1000	1000	1000	1000	1000				
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
Group delay (usec)(sbd)		5.70785082800E+03			5.70784201579E+03				Resid mbdelay (usec)	-6.81279E-03 +/- 1.0E-04		
Sband delay (usec)		5.70785678204E+03			-4.8160458E+01				Resid sbdelay (usec)	1.47662E-02 +/- 8.1E-04		
Phase delay (usec)		5.70784201043E+03			-2.8000009E-08				Resid phdelay (usec)	-5.35679E-06 +/- 3.5E-07		
Delay rate (us/s)		-5.05530829343E-01			-5.05530731054E-01				Resid rate (us/s)	-9.82897E-08 +/- 3.3E-09		
Total phase (deg)			-79.7		-4.75933808770E-05				Resid phase (deg)	-166.1 +/- 10.7		
RMS	67.0	25.1		0.291 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	67.0	25.1	Search (1024X32)	0.285					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	73.1	43.9	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	68.7	15.2	Inc. seg. avg.	0.429					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	67.2	26.5	Inc. frq. avg.	0.446					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

n: az 316.3 el 45.3 pa 80.8 X: az 355.3 el 26.1 pa 4.8 u,v (fr/asec) 5504.772 -6944.289 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX.W.269.1HROB9

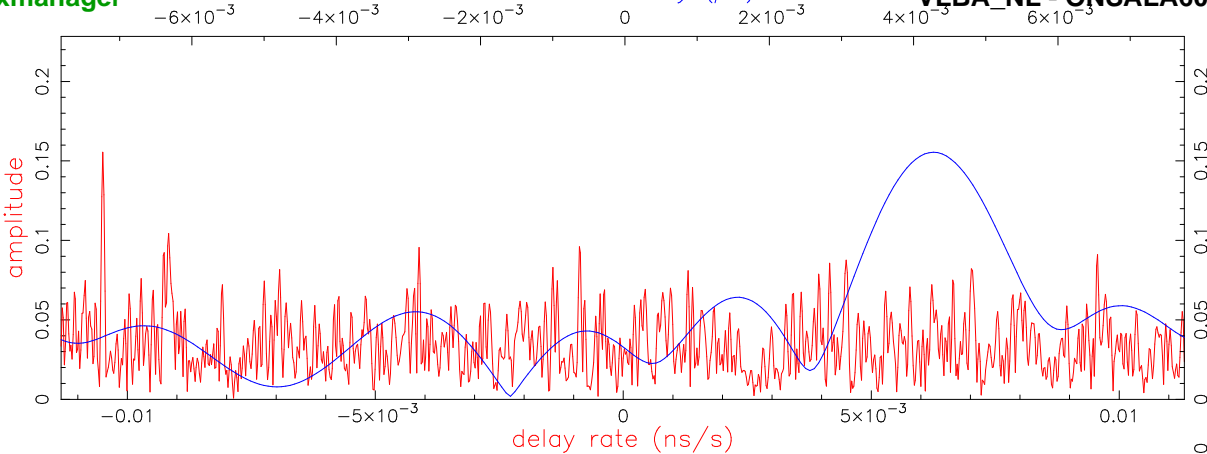
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nX

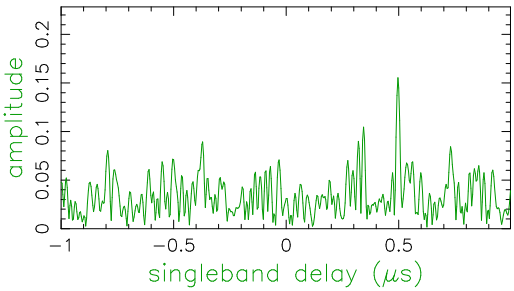
VLBA_NL - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

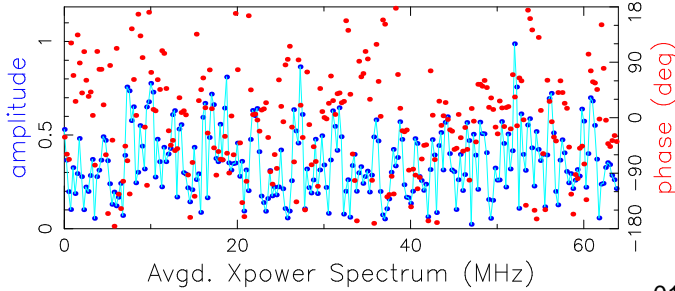


Fringe quality 0

SNR 5.7
 Int time 179.968
 Amp 0.228
 Phase -86.4
 PFD 7.5e-01
 Delays (us)
 SBD 0.496594
 MBD 0.004293
 Fringe rate (Hz)
 -0.906127
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

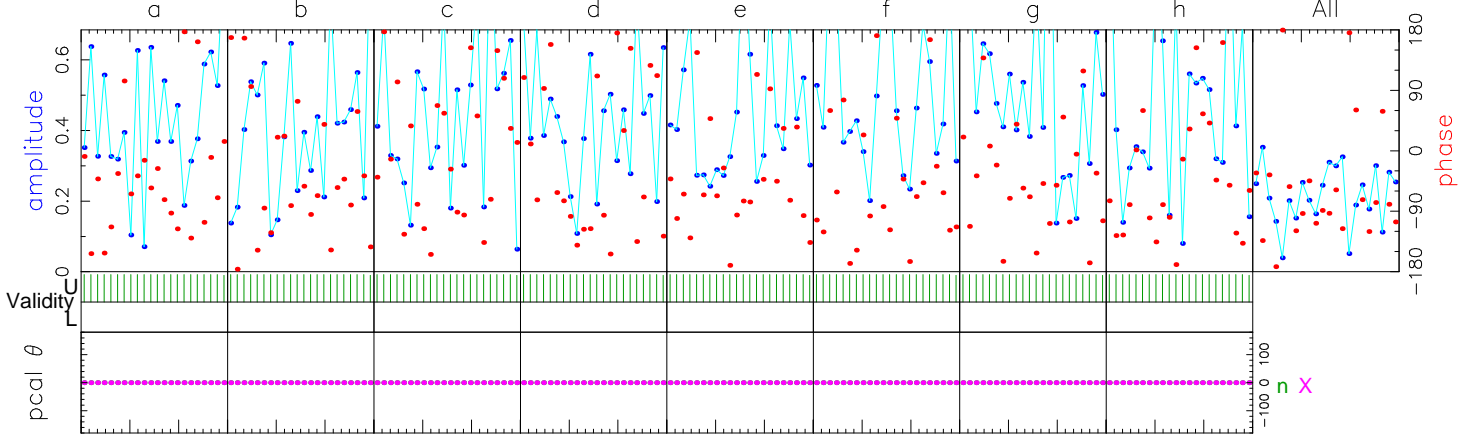


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140431
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	5.70834630877E+03	Apriori delay (usec)	5.70784201579E+03	Resid mbdelay (usec)	4.29298E-03	+/-	1.9E-04
Sband delay (usec)	5.70833861004E+03	Apriori clock (usec)	-4.8160458E+01	Resid sbdelay (usec)	4.96594E-01	+/-	1.5E-03
Phase delay (usec)	5.70784201300E+03	Apriori clockrate (us/s)	-2.8000009E-08	Resid phdelay (usec)	-2.78510E-06	+/-	6.5E-07
Delay rate (us/s)	-5.05541250285E-01	Apriori rate (us/s)	-5.05530731054E-01	Resid rate (us/s)	-1.05192E-05	+/-	6.2E-09
Total phase (deg)	0.0	Apriori accel (us/s/s)	-4.75933808770E-05	Resid phase (deg)	-86.4	+/-	20.1

ph/seg (deg)	61.9	Theor.	47.1	Amplitude	0.228 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	65.4		82.1	Search (1024X32)	0.152	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	30.0		28.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	40.9		49.5	Inc. seg. avg.	0.237	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.216	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 316.3 el 45.3 pa 80.8 X: az 355.3 el 26.1 pa 4.8 u, v (fr/asec) 5504.772 -6944.289 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX.W.285.1HROB9

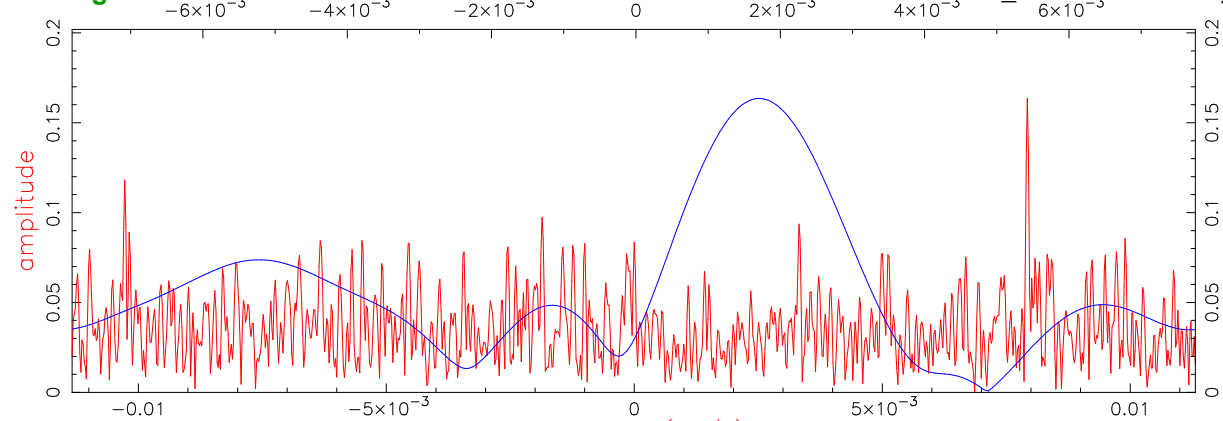
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, nX

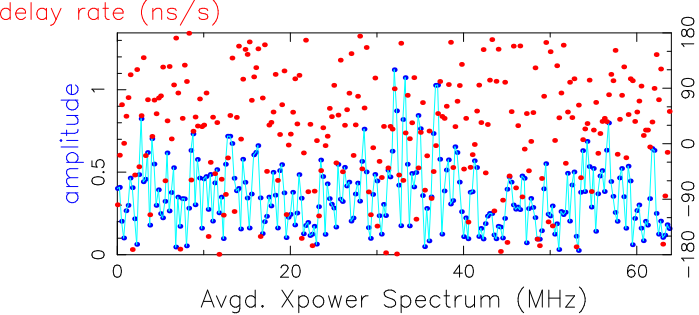
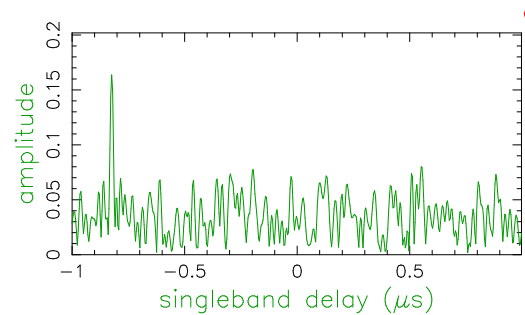
VLBA_NL - ONSALA60, fgroup W, pol RL

multiband delay (μ s)



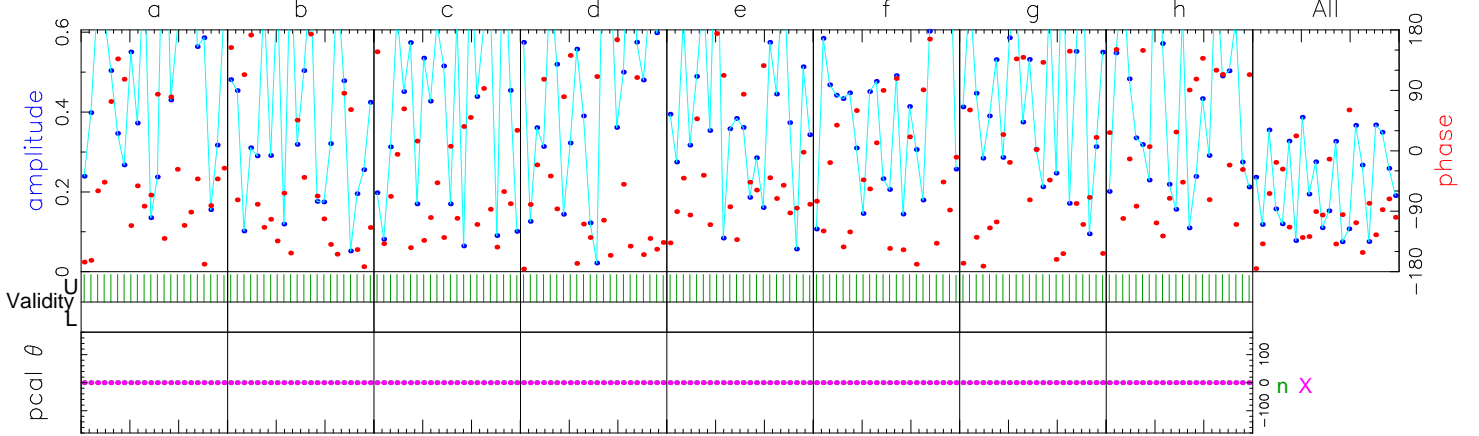
Fringe quality 0

SNR 6.0
 Int time 179.968
 Amp 0.202
 Phase -103.8
 PFD 2.2e-01
 Delays (us)
 SBD -0.823878
 MBD 0.001714
 Fringe rate (Hz) 0.683160
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140433
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	5.70701560475E+03	5.70701813779E+03	5.70784201244E+03	5.70784201579E+03	5.70784201579E+03	5.70784201579E+03	5.70784201579E+03	5.70784201579E+03	1.71396E-03	+/- 1.8E-04
Sband delay (usec)	5.70701813779E+03	5.70701813779E+03	5.70784201244E+03	5.70784201579E+03	5.70784201579E+03	5.70784201579E+03	5.70784201579E+03	5.70784201579E+03	-8.23878E-01	+/- 1.4E-03
Phase delay (usec)	5.70784201244E+03	5.70784201244E+03	5.70784201244E+03	5.70784201244E+03	5.70784201244E+03	5.70784201244E+03	5.70784201244E+03	5.70784201244E+03	-3.34864E-06	+/- 6.2E-07
Delay rate (us/s)	-5.05522800249E-01	-5.05522800249E-01	-5.05522800249E-01	-5.05522800249E-01	-5.05522800249E-01	-5.05522800249E-01	-5.05522800249E-01	-5.05522800249E-01	7.93080E-06	+/- 5.9E-09
Total phase (deg)			-17.5						-103.8	+/- 19.1
Apriori delay (usec)				0.162						
Apriori clock (usec)				0.162						
Apriori clockrate (us/s)				0.000						
Apriori rate (us/s)				0.210						
Apriori accel (us/s/s)				0.204						
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

n: az 316.3 el 45.3 pa 80.8 X: az 355.3 el 26.1 pa 4.8 u,v (fr/asec) 5504.772 -6944.289 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/nX.W.302.1HROB9

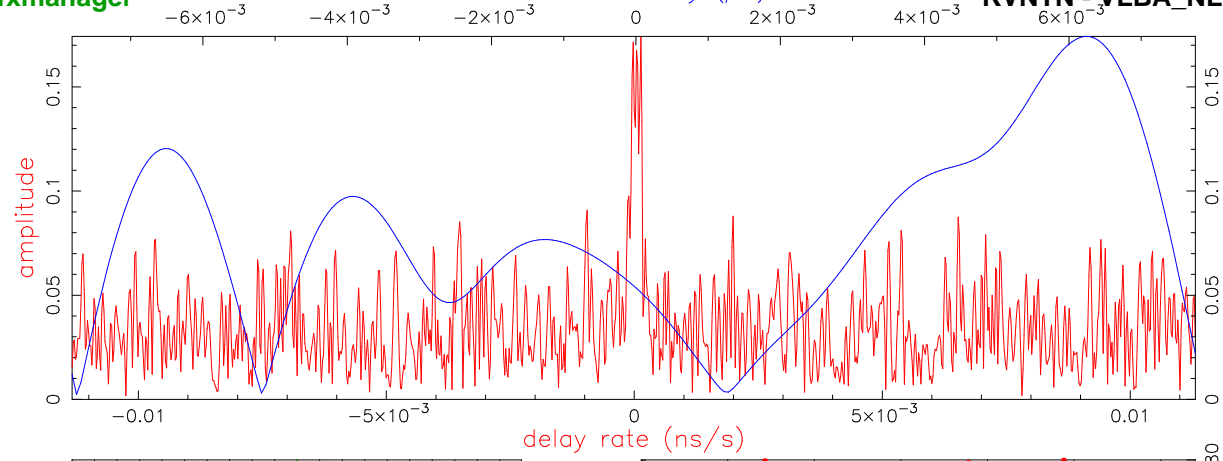
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

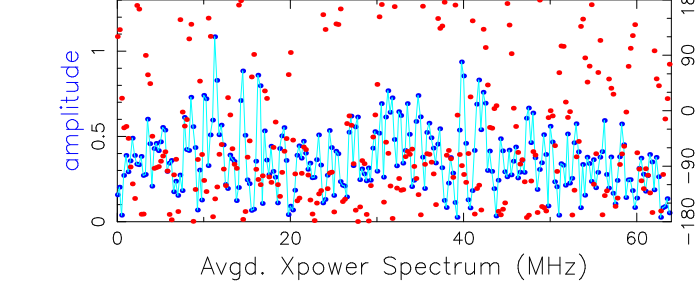
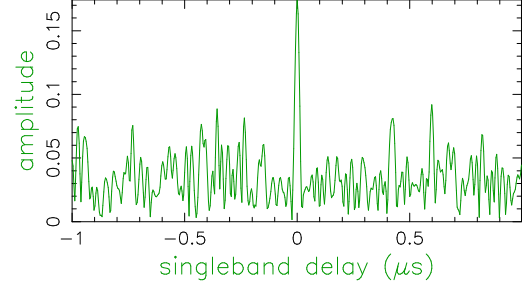
0102+584.1HROB9, No0122, tn

KVNTN - VLBA_NL, fgroup W, pol LL

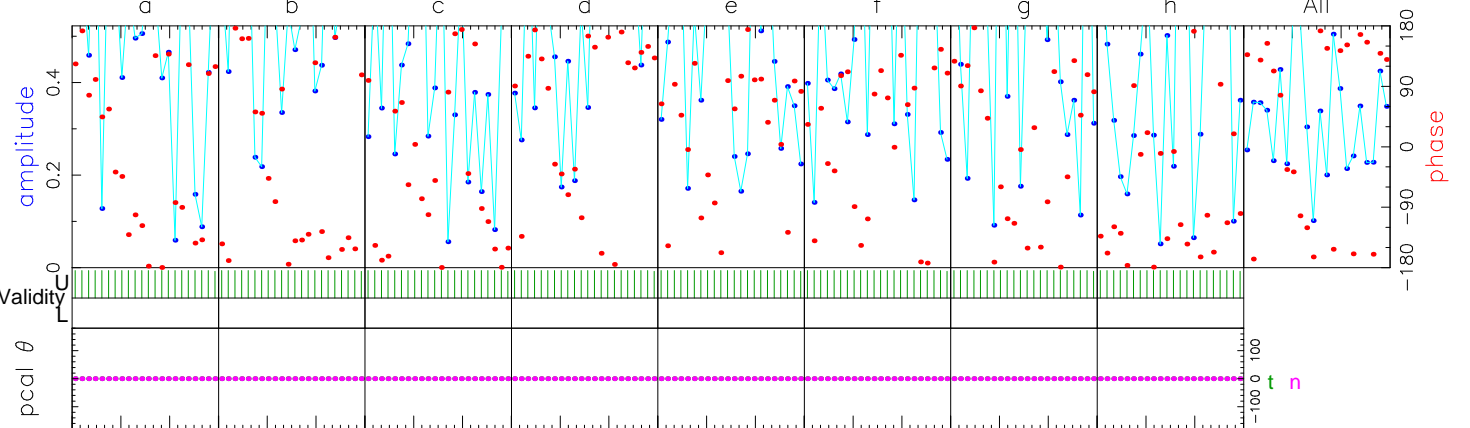
multiband delay (μ s)



Fringe quality 0
 SNR 6.4
 Int time 179.950
 Amp 0.174
 Phase 170.0
 PFD 2.2e-02
 Delays (us)
 SBD -0.000010
 MBD 0.006243
 Fringe rate (Hz) 0.011363
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140428
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.43186156067E+03				-2.43186780362E+03				6.24295E-03	+/- 1.7E-04
Sband delay (usec)	-2.43186781412E+03				1.2402048E+00				-1.05000E-05	+/- 1.3E-03
Phase delay (usec)	-2.43186779814E+03				-4.0000002E-07				5.48193E-06	+/- 5.8E-07
Delay rate (us/s)	1.21328258999E+00				1.21328245808E+00				1.31915E-07	+/- 5.6E-09
Total phase (deg)			-47.4		1.65673577068E-06				170.0	+/- 17.9
ph/seg (deg)	61.8	42.0			0.173					
amp/seg (%)	109.4	73.4			0.000					
ph/frq (deg)	53.3	25.4			0.257					
amp/frq (%)	63.9	44.2			0.212					
t: az 38.4 el 36.3 pa -83.8										
n: az 316.3 el 45.3 pa 80.8										
u,v (fr/asec)					-13301.179					
Control file: cf_1234_gmva					Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn..1HROB9					
					Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn.W.256.1HROB9					

RMS Theor. Amplitude 0.174 +/- 0.027
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

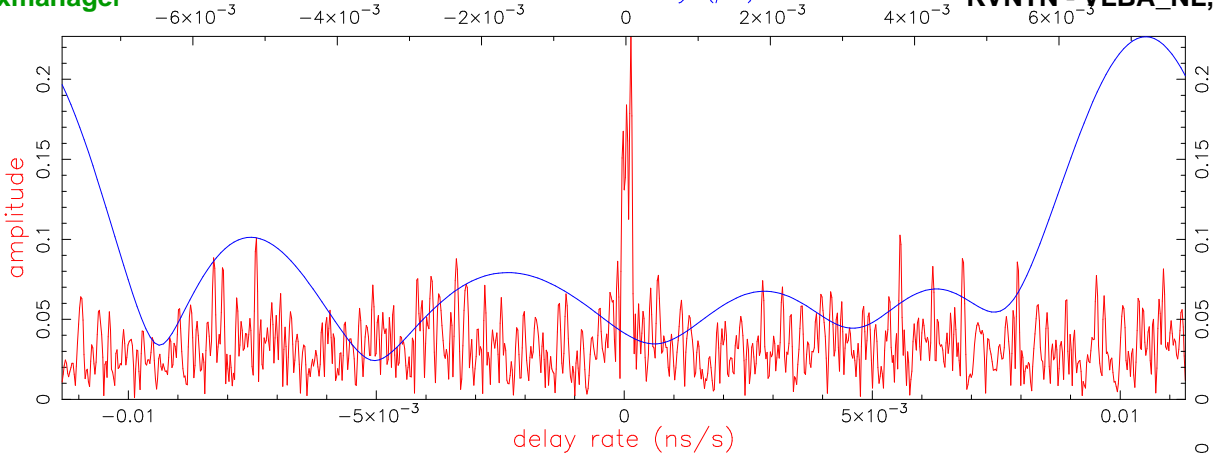
fxmanager

0102+584.1HROB9, No0122, tn

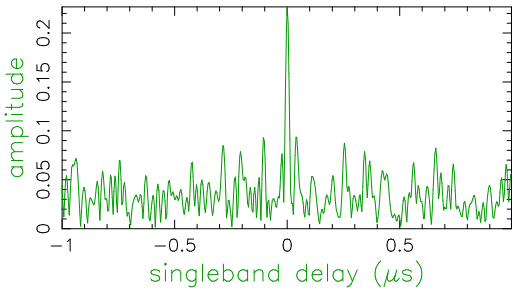
KVNTN - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

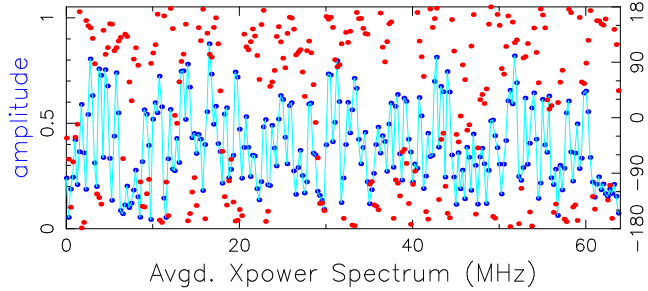
Fringe quality 9



SNR 8.3
 Int time 179.950
 Amp 0.227
 Phase 75.8
 PFD 1.6e-08
 Delays (us)
 SBD 0.000346
 MBD 0.007201
 Fringe rate (Hz) 0.012181
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

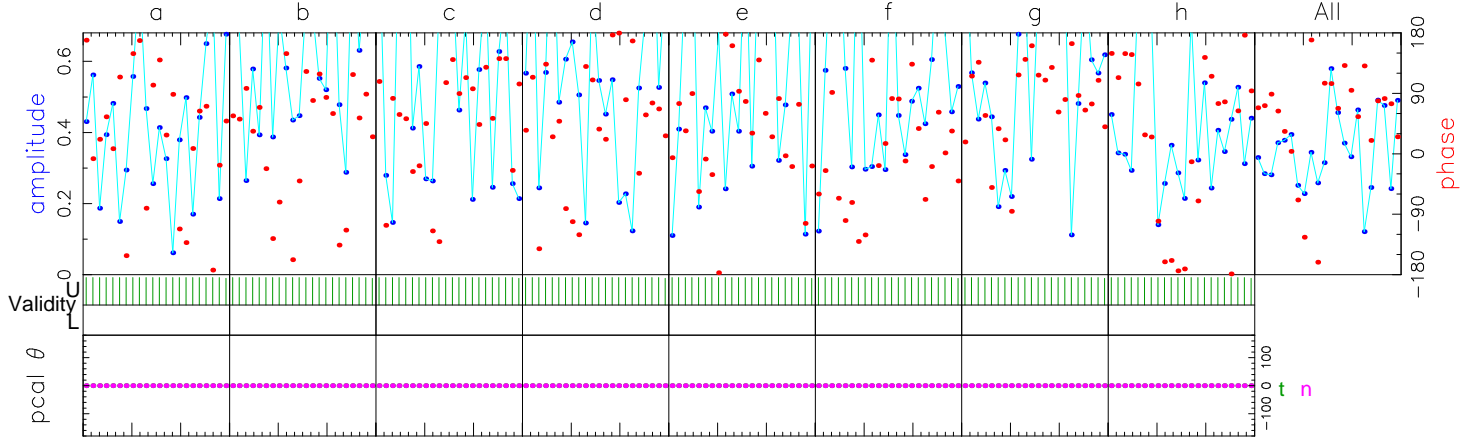


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140430
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-2.43186060239E+03	Apriori delay (usec)	-2.43186780362E+03	Resid mbdelay (usec)	7.20124E-03	+/-	1.3E-04
Sband delay (usec)	-2.43186745712E+03	Apriori clock (usec)	1.2402048E+00	Resid sbdelay (usec)	3.46500E-04	+/-	1.0E-03
Phase delay (usec)	-2.43186780118E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	2.44350E-06	+/-	4.4E-07
Delay rate (us/s)	1.21328259948E+00	Apriori rate (us/s)	1.21328245808E+00	Resid rate (us/s)	1.41404E-07	+/-	4.3E-09
Total phase (deg)	-141.6	Apriori accel (us/s/s)	1.65673577068E-06	Resid phase (deg)	75.8	+/-	13.8

ph/seg (deg)	64.7	RMS	32.3	Theor.	Amplitude	0.227 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.1	Search (1024X32)	0.217	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	Interp.	0.000	SampCntNorm: enabled	mb window (us)	-1.000 1.000	
ph/frq (deg)	37.5	Inc. seg. avg.	0.302	Bits/sample: 2x2	Inc. frq. avg.	0.240	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
amp/frq (%)	46.7	Inc. frq. avg.	0.240	Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 38.4 el 36.3 pa -83.8 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -13301.179 -271.266 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn.W.272.1HROB9

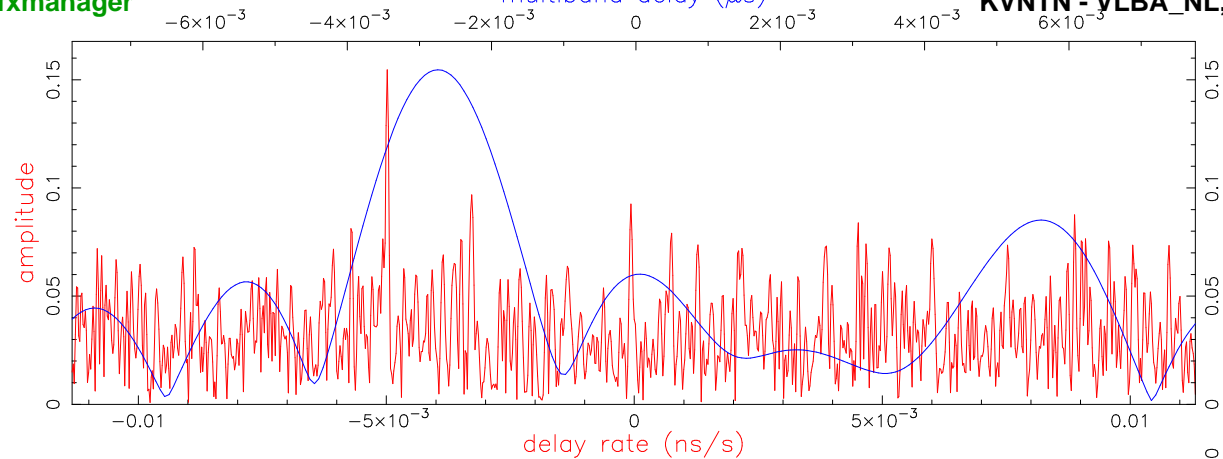
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, tn

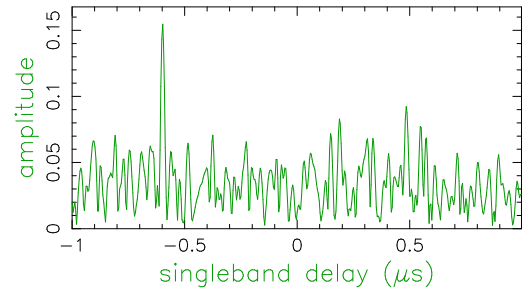
KVNTN - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

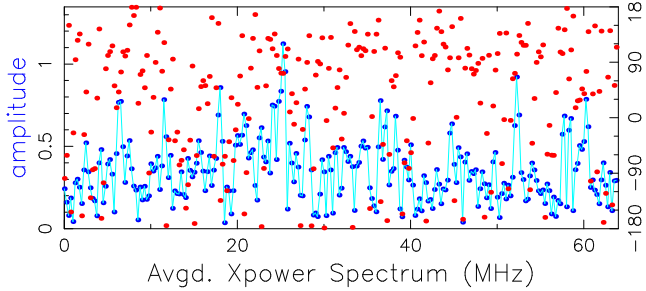


Fringe quality 0

SNR 5.7
Int time 179.950
Amp 0.168
Phase 79.2
PFD 8.2e-01
Delays (us)
SBD -0.597951
MBD -0.002754
Fringe rate (Hz)
-0.429658
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

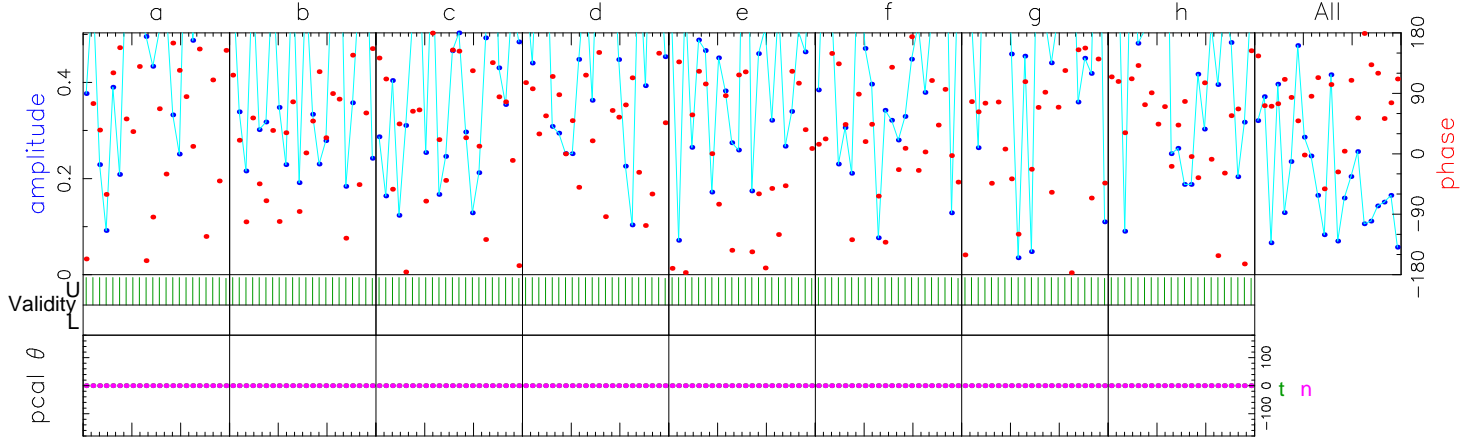


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140432
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.43246430798E+03	Apriori delay (usec)	-2.43186780362E+03	Resid mbdelay (usec)	-2.75436E-03	+/-	1.9E-04
Sband delay (usec)	-2.43246575487E+03	Apriori clock (usec)	1.2402048E+00	Resid sbdelay (usec)	-5.97951E-01	+/-	1.5E-03
Phase delay (usec)	-2.43186780107E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	2.55344E-06	+/-	6.5E-07
Delay rate (us/s)	1.21327747017E+00	Apriori rate (us/s)	1.21328245808E+00	Resid rate (us/s)	-4.98791E-06	+/-	6.3E-09
Total phase (deg)	-138.2	Apriori accel (us/s/s)	1.65673577068E-06	Resid phase (deg)	79.2	+/-	20.2

ph/seg (deg)	55.2	Theor.	47.4	Amplitude	0.168 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	85.4		82.7	Search (1024X32)	0.150	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.3		28.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.2		49.8	Inc. seg. avg.	0.170	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.166	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 38.4 el 36.3 pa -83.8 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -13301.179 -271.266 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn.W.288.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

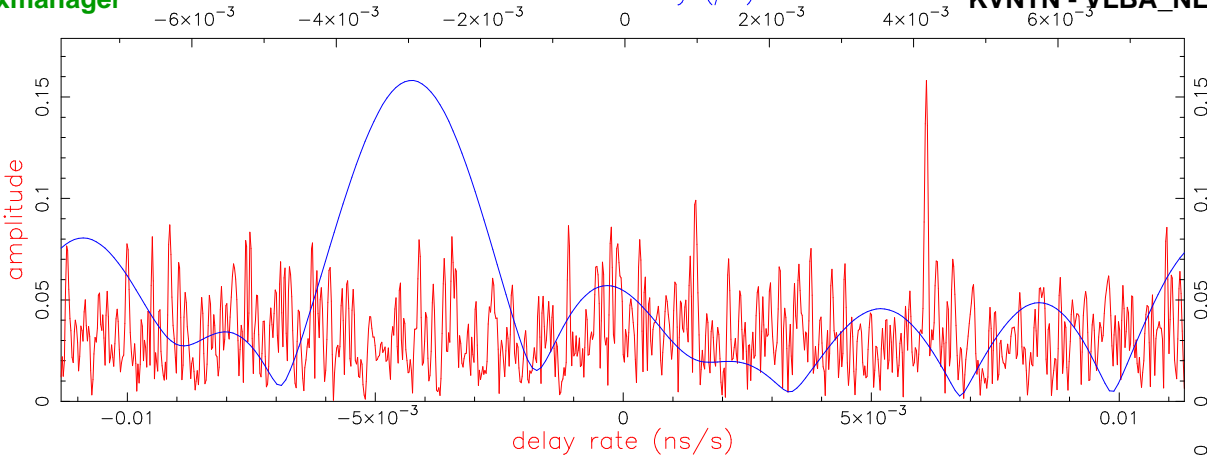
fxmanager

0102+584.1HROB9, No0122, tn

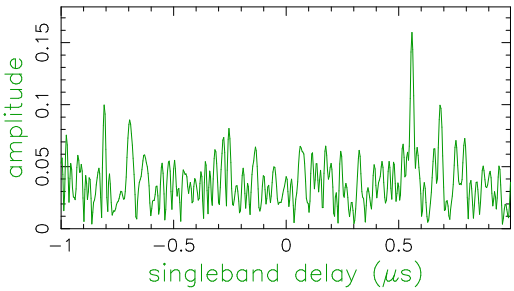
KVNTN - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

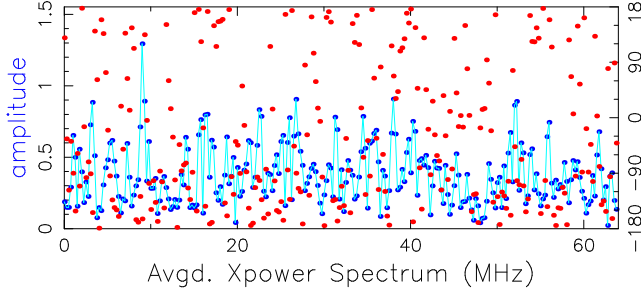
Fringe quality 0



SNR 5.8
 Int time 179.950
 Amp 0.179
 Phase -150.0
 PFD 5.6e-01
 Delays (us)
 SBD 0.558744
 MBD -0.002958
 Fringe rate (Hz)
 0.527353
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

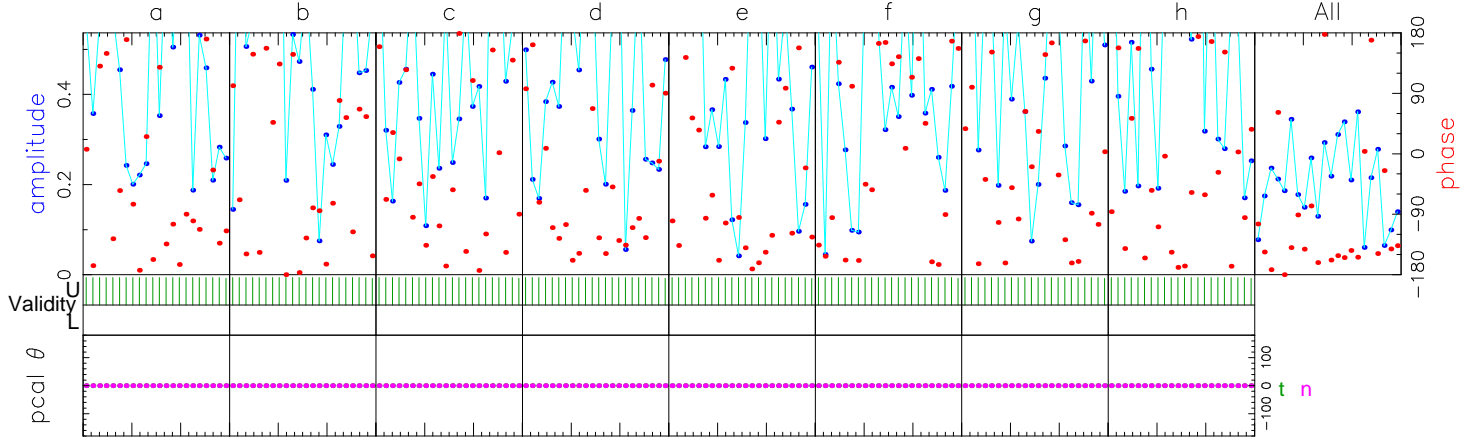


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140434
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tn	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.43130826142E+03	Apriori delay (usec)	-2.43186780362E+03	Resid mbdelay (usec)	-2.95780E-03	+/-	1.9E-04
Sband delay (usec)	-2.43130905937E+03	Apriori clock (usec)	1.2402048E+00	Resid sbdelay (usec)	5.58744E-01	+/-	1.5E-03
Phase delay (usec)	-2.43186780846E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-4.83849E-06	+/-	6.4E-07
Delay rate (us/s)	1.21328858013E+00	Apriori rate (us/s)	1.21328245808E+00	Resid rate (us/s)	6.12205E-06	+/-	6.1E-09
Total phase (deg)		Apriori accel (us/s/s)	1.65673577068E-06	Resid phase (deg)	-150.0	+/-	19.7

ph/seg (deg)	59.2	Theor.	46.3	Amplitude	0.179 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	63.9		80.8	Search (1024X32)	0.151	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	25.5		27.9	Inc. seg. avg.	0.176	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.4		48.7	Inc. frq. avg.	0.172	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 38.4 el 36.3 pa -83.8 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -13301.179 -271.266 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/tn.W.312.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

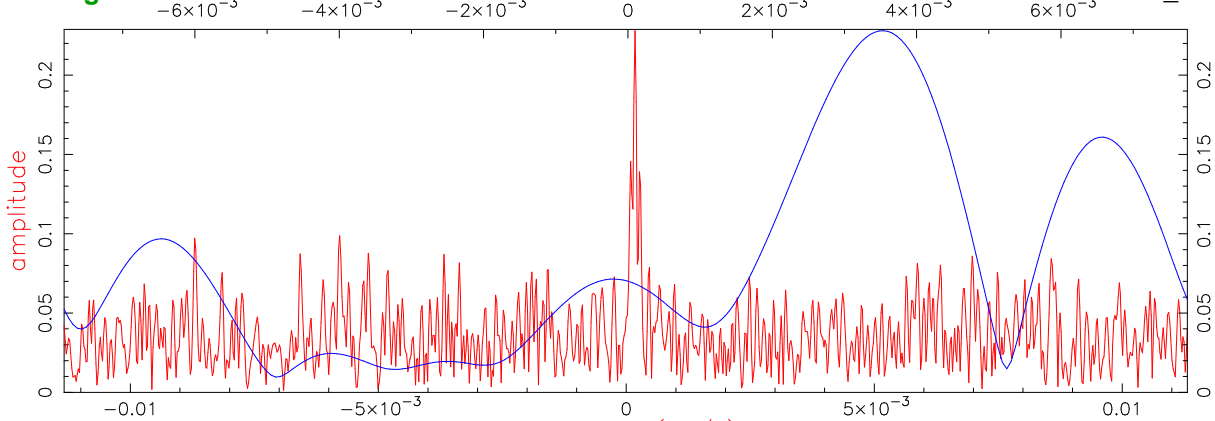
fxmanager

0102+584.1HROB9, No0122, un

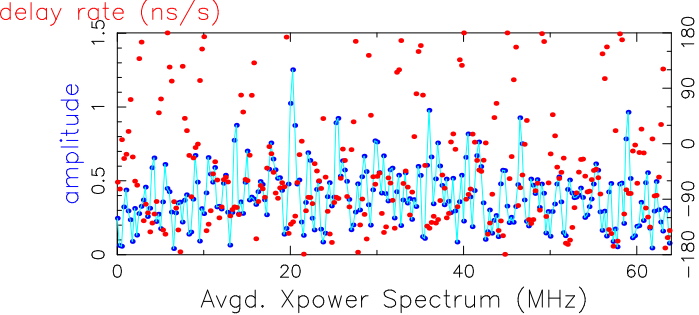
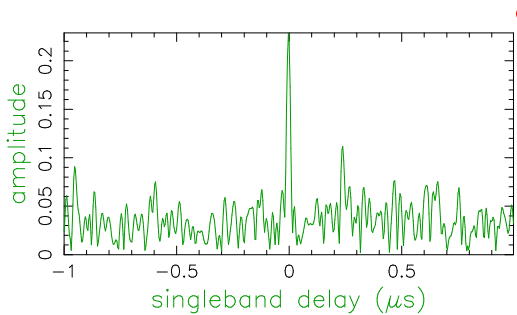
KVNUS - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

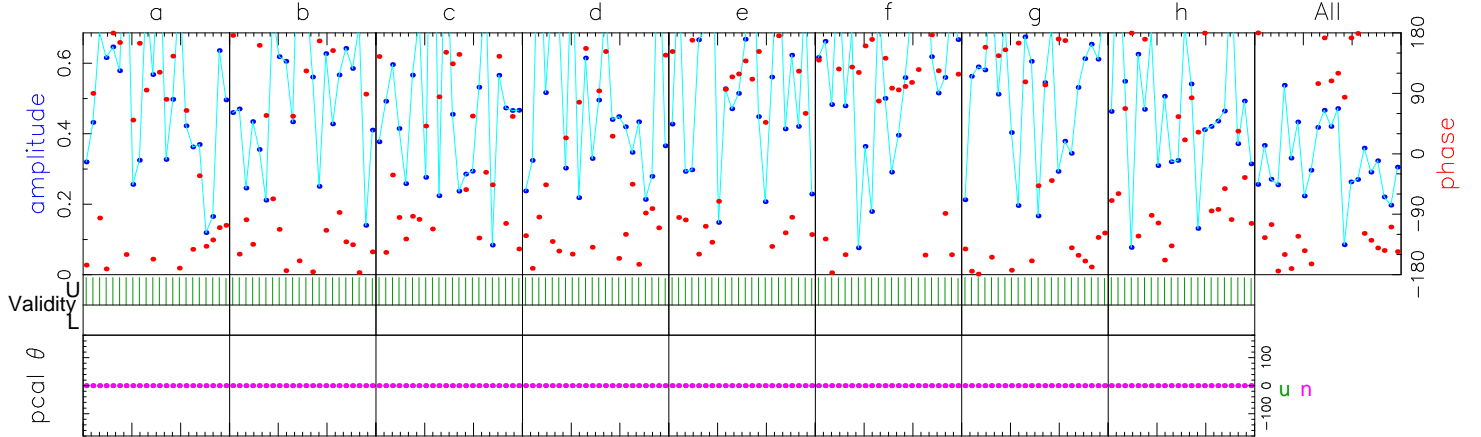


SNR 8.4
 Int time 179.979
 Amp 0.229
 Phase -164.7
 PFD 8.4e-09
 Delays (us)
 SBD -0.003102
 MBD 0.003546
 Fringe rate (Hz)
 0.014865
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140433
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.49657189944E+03	Apriori delay (usec)	-1.49657544587E+03	Resid mbdelay (usec)	3.54643E-03	+/-	1.3E-04
Sband delay (usec)	-1.49657854837E+03	Apriori clock (usec)	2.3900514E+00	Resid sbdelay (usec)	-3.10250E-03	+/-	1.0E-03
Phase delay (usec)	-1.49657545118E+03	Apriori clockrate (us/s)	-1.0000003E-07	Resid phdelay (usec)	-5.30951E-06	+/-	4.4E-07
Delay rate (us/s)	1.18600118709E+00	Apriori rate (us/s)	1.18600101451E+00	Resid rate (us/s)	1.72573E-07	+/-	4.2E-09
Total phase (deg)	-131.2	Apriori accel (us/s/s)	-1.89471937456E-07	Resid phase (deg)	-164.7	+/-	13.7

ph/seg (deg)	48.2	Theor.	32.0	Amplitude	0.229 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	60.7		55.9	Search (1024X32)	0.225	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	45.6		19.3	Inc. seg. avg.	0.278	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	39.1		33.7	Inc. frq. avg.	0.262	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 39.7 el 39.5 pa -84.9 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -13003.740 -359.218 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/un..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/un.W.304.1HROB9

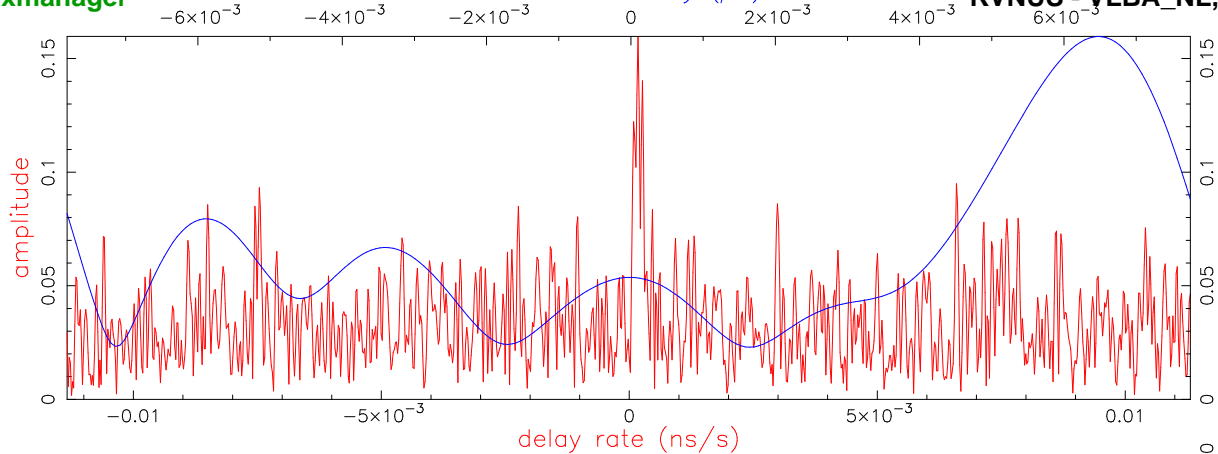
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, un

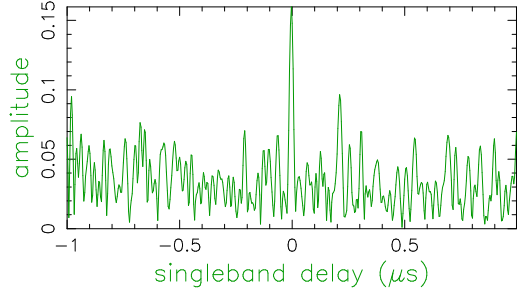
KVNUS - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

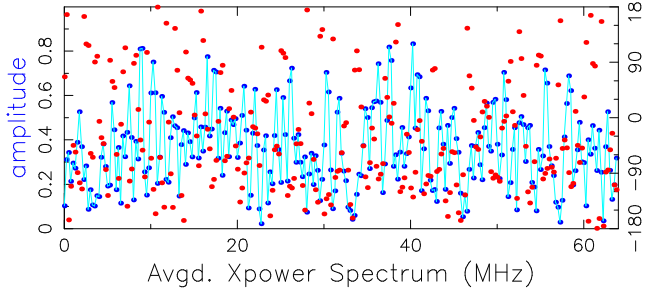


Fringe quality 0

SNR 5.9
 Int time 179.979
 Amp 0.160
 Phase 173.2
 PFD 4.4e-01
 Delays (us)
 SBD -0.003803
 MBD 0.006484
 Fringe rate (Hz)
 0.015327
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

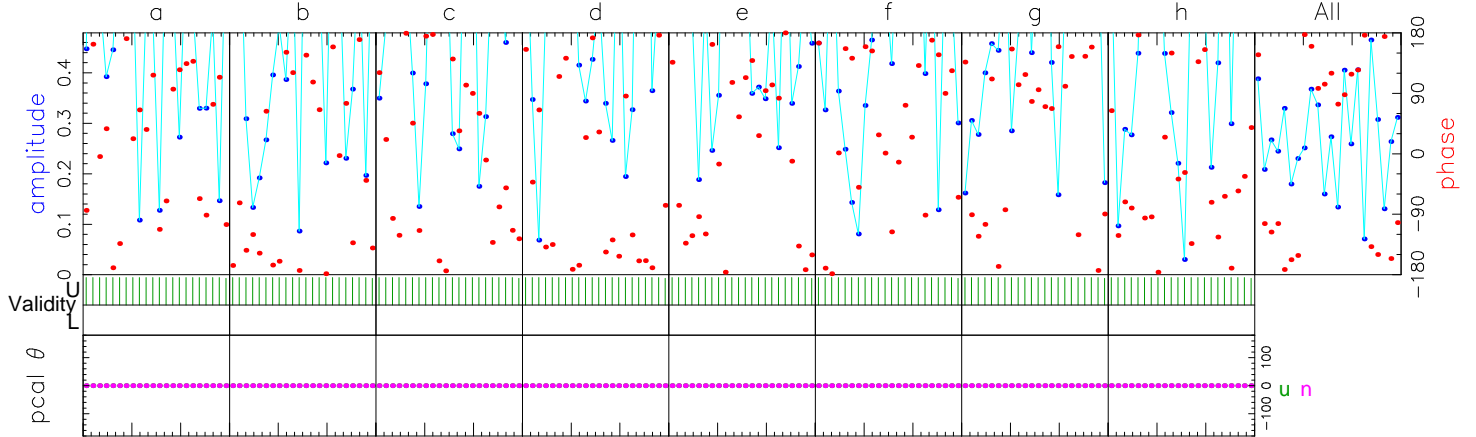


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140436
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.49658458650E+03				-1.49657544587E+03				6.48437E-03	+/- 1.9E-04
Sband delay (usec)	-1.49657924912E+03				2.3900514E+00				-3.80325E-03	+/- 1.5E-03
Phase delay (usec)	-1.49657544028E+03				-1.0000003E-07				5.58510E-06	+/- 6.3E-07
Delay rate (us/s)	1.18600119245E+00				1.18600101451E+00				1.77936E-07	+/- 6.1E-09
Total phase (deg)			-153.3		-1.89471937456E-07				173.2	+/- 19.6
	RMS	Theor.	Amplitude	0.160 +/- 0.027	Pcal mode: MANUAL, MANUAL				PC period (AP's) 5, 5	
ph/seg (deg)	56.2	45.9	Search (1024X32)	0.159	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000
amp/seg (%)	93.6	80.0	Interp.	0.000	Bits/sample: 2x2				mb window (us)	-0.008 0.008
ph/frq (deg)	49.5	27.7	Inc. seg. avg.	0.206	Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	53.1	48.3	Inc. frq. avg.	0.177	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00
u: az 39.7 el 39.5 pa -84.9			n: az 316.3 el 45.3 pa 80.8		u,v (fr/asec) -13003.740 -359.218					simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/un..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/un.W.327.1HROB9

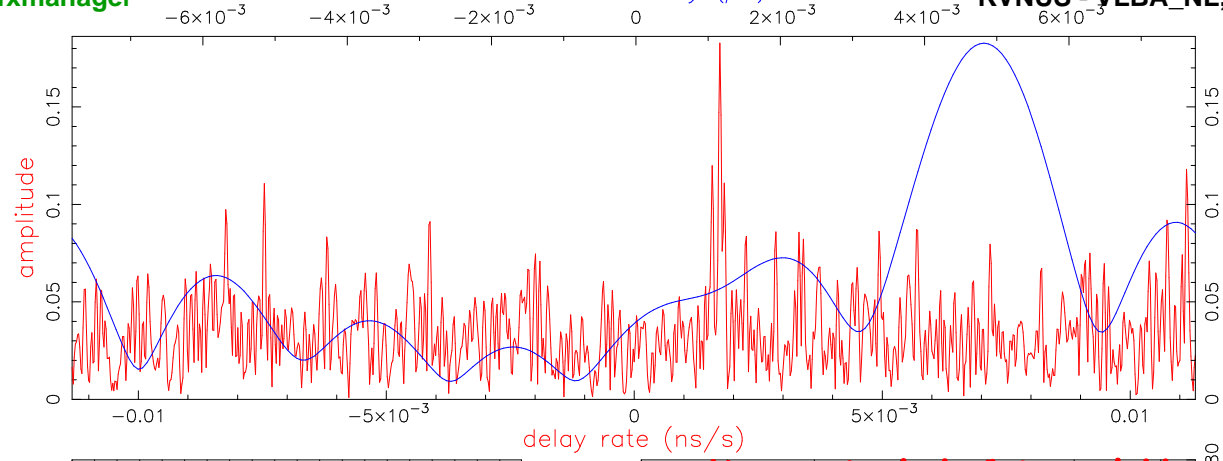
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, un

KVNUS - VLBA_NL, fgroup W, pol LR

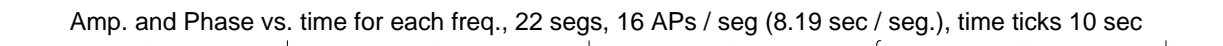
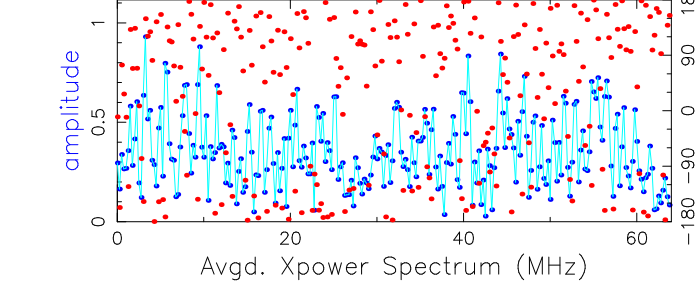
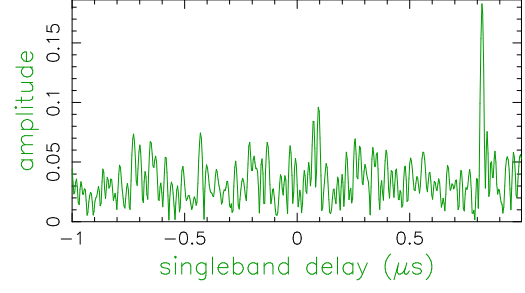
multiband delay (μ s)



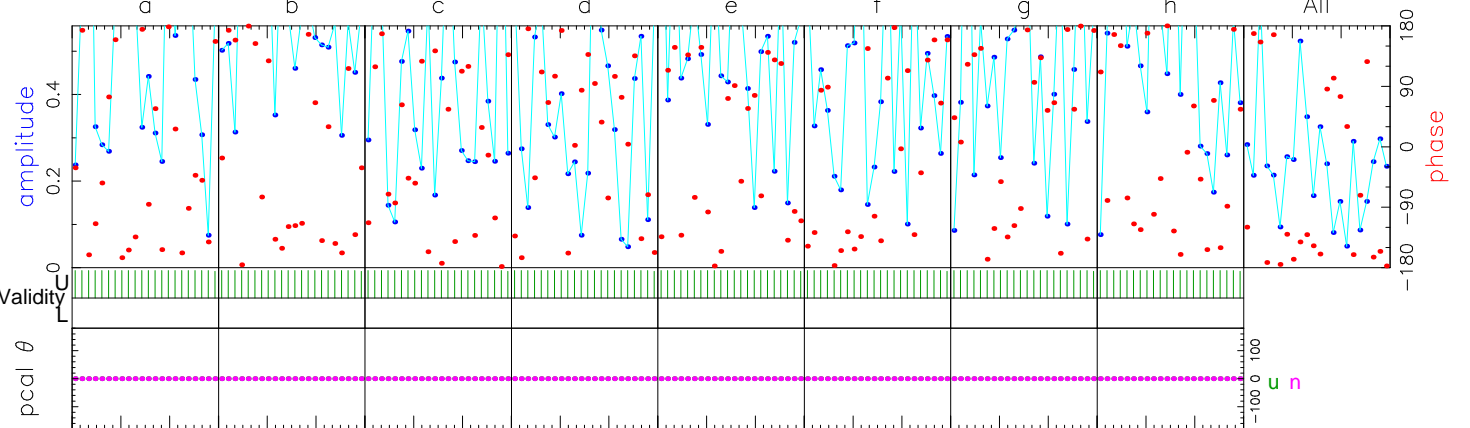
Fringe quality 0

SNR 6.8
 Int time 179.979
 Amp 0.186
 Phase -169.3
 PFD 1.9e-03
 Delays (us)
 SBD 0.821475
 MBD 0.004837
 Fringe rate (Hz) 0.148943
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140438
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.49575810912E+03	-1.49575397062E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03		
Sband delay (usec)	-1.49575397062E+03	-1.49575397062E+03	-1.49575397062E+03	-1.49575397062E+03	-1.49575397062E+03	-1.49575397062E+03	-1.49575397062E+03	-1.49575397062E+03		
Phase delay (usec)	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03	-1.4957545133E+03		
Delay rate (us/s)	1.18600274360E+00	1.18600274360E+00	1.18600274360E+00	1.18600274360E+00	1.18600274360E+00	1.18600274360E+00	1.18600274360E+00	1.18600274360E+00		
Total phase (deg)			-135.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
u, v (fr/asec)										
simultaneous interpolator										

u: az 39.7 el 39.5 pa -84.9 n: az 316.3 el 45.3 pa 80.8 u, v (fr/asec) -13003.740 -359.218

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/un..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/un.W.334.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

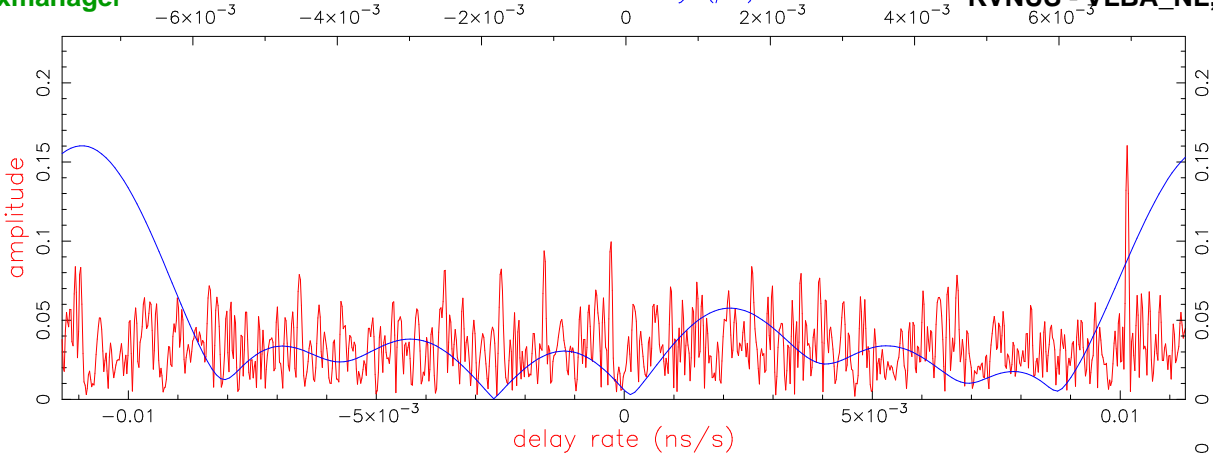
fxmanager

0102+584.1HROB9, No0122, un

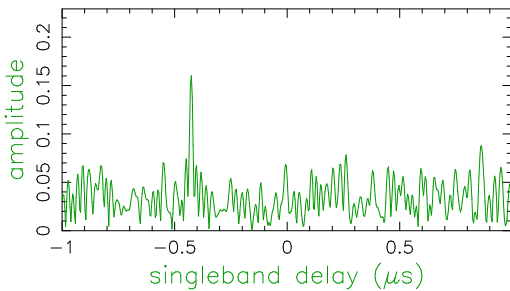
KVNUS - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

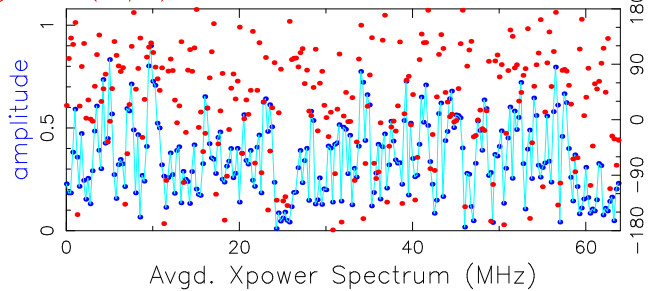
Fringe quality 0



SNR 5.9
 Int time 179.979
 Amp 0.229
 Phase 95.7
 PFD 3.7e-01
 Delays (us)
 SBD -0.426522
 MBD 0.008082
 Fringe rate (Hz)
 0.874316
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

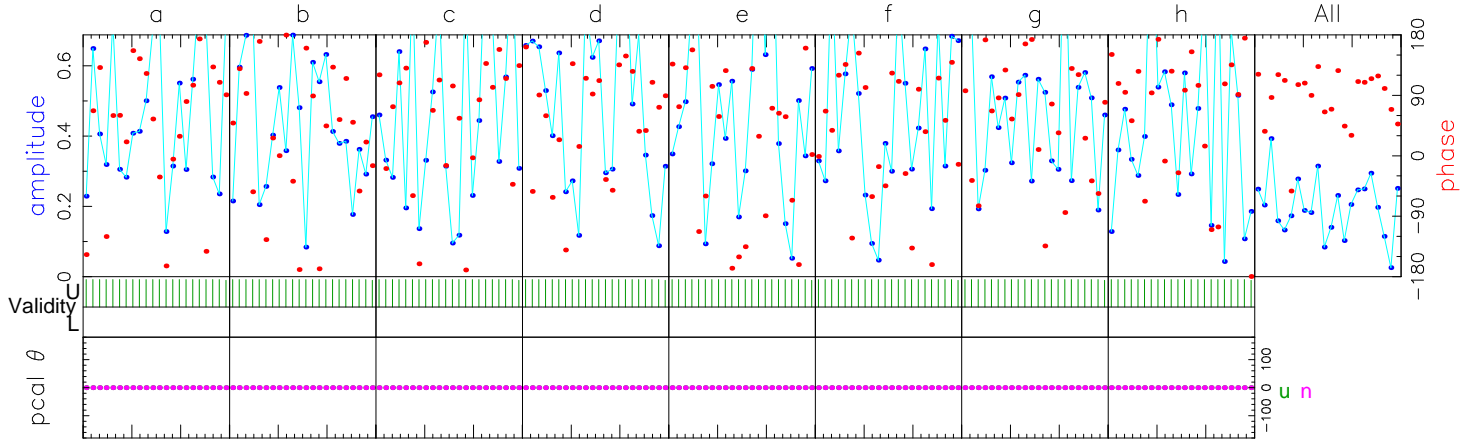


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140440
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.49700486393E+03								8.08194E-03	+/- 1.8E-04
Sband delay (usec)	-1.49700196787E+03								-4.26522E-01	+/- 1.5E-03
Phase delay (usec)	-1.49657544278E+03								3.08626E-06	+/- 6.3E-07
Delay rate (us/s)	1.18601116446E+00								1.01499E-05	+/- 6.0E-09
Total phase (deg)			-230.8						95.7	+/- 19.4
	RMS	Theor.	Amplitude	0.229 +/- 0.039					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	44.0	45.5	Search (1024X32)	0.153					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	56.7	79.5	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	20.1	27.5	Inc. seg. avg.	0.218					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.0	47.9	Inc. frq. avg.	0.212					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
u: az 39.7 el 39.5 pa -84.9			n: az 316.3 el 45.3 pa 80.8						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
										simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/un..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/un.W.351.1HROB9

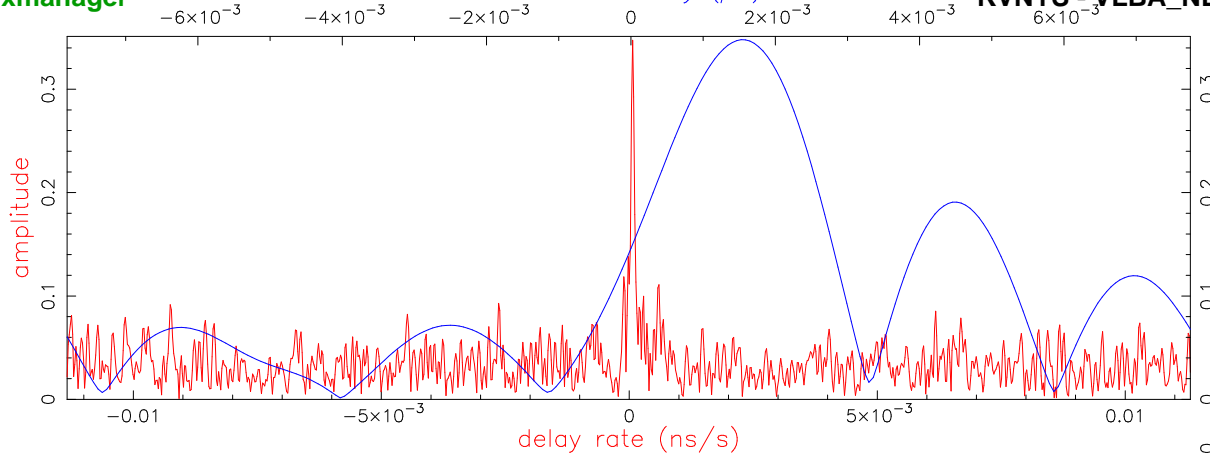
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, yn

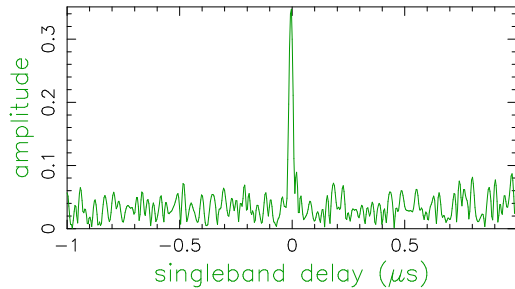
KVNYS - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

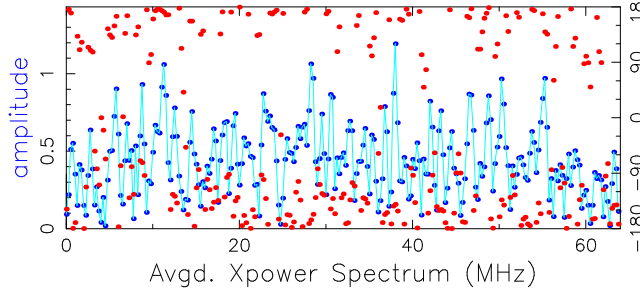


Fringe quality 9

SNR 12.9
 Int time 179.979
 Amp 0.351
 Phase 115.0
 PFD 1.6e-29
 Delays (us)
 SBD -0.005333
 MBD 0.001481
 Fringe rate (Hz)
 0.005069
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

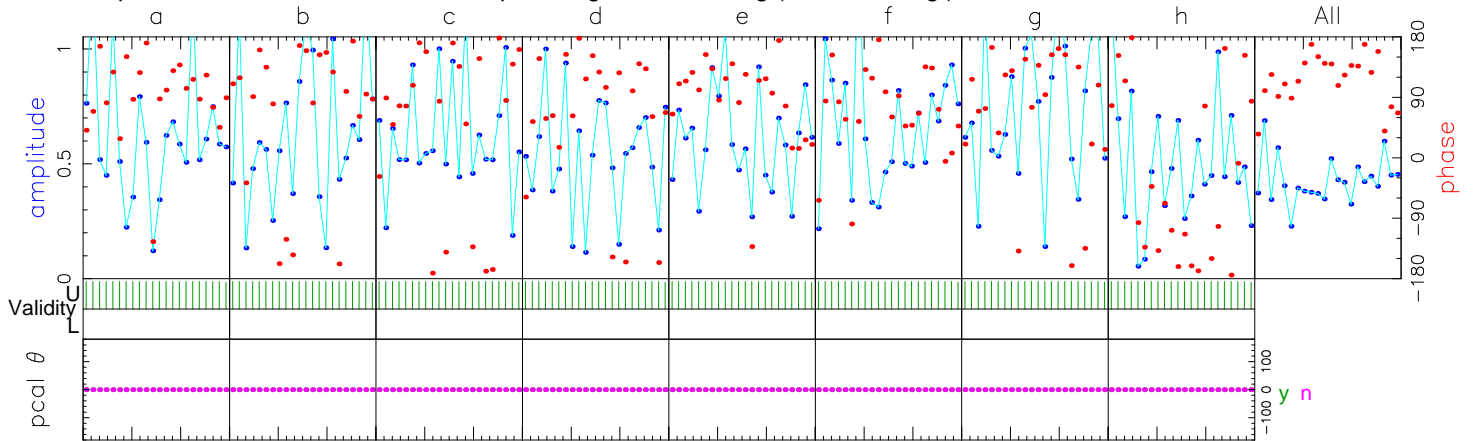


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140439
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.40099517473E+03	Apriori delay (usec)	-1.40099665538E+03	Resid mbdelay (usec)	1.48065E-03	+/-	8.4E-05
Sband delay (usec)	-1.40100198788E+03	Apriori clock (usec)	1.1062040E+07	Resid sbdelay (usec)	-5.33250E-03	+/-	6.7E-04
Phase delay (usec)	-1.40099665167E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	3.70906E-06	+/-	2.9E-07
Delay rate (us/s)	1.17822849884E+00	Apriori rate (us/s)	1.17822844000E+00	Resid rate (us/s)	5.88443E-08	+/-	2.8E-09
Total phase (deg)	-207.0	Apriori accel (us/s/s)	2.01801258514E-06	Resid phase (deg)	115.0	+/-	8.9

ph/seg (deg)	36.6	Theor.	20.9	Amplitude	0.351 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	35.6		36.4	Search (1024X32)	0.340	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	36.8		12.6	Inc. seg. avg.	0.403	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.5		22.0	Inc. frq. avg.	0.379	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
y: az 40.6 el 39.8 pa -81.3		n: az 316.3 el 45.3 pa 80.8		u,v (fr/asec)	-12916.859 54.410	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn.W.344.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

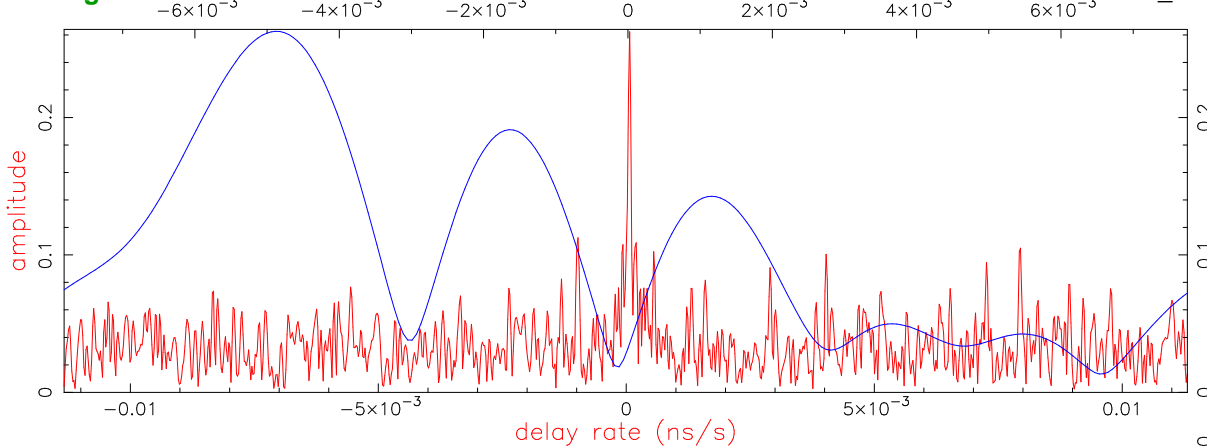
fxmanager

0102+584.1HROB9, No0122, yn

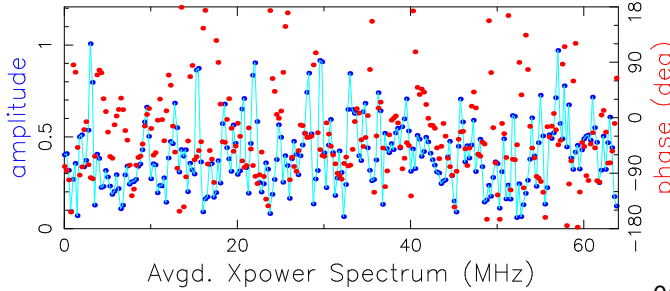
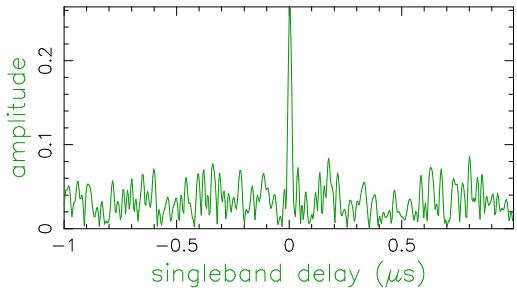
KVNYS - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

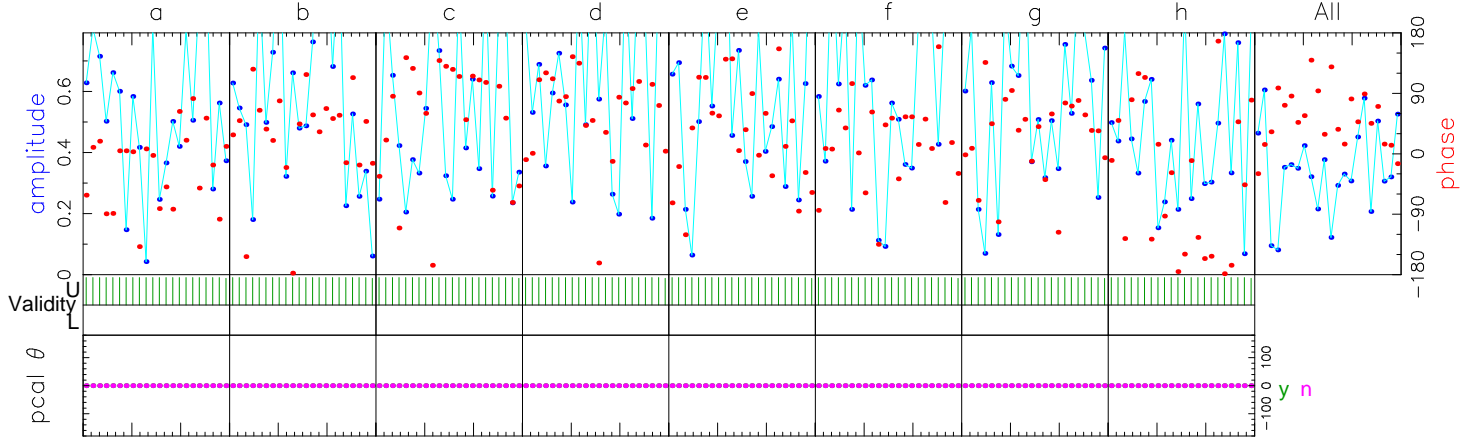


SNR 9.7
 Int time 179.979
 Amp 0.264
 Phase 46.2
 PFD 7.0e-14
 Delays (us)
 SBD 0.002881
 MBD -0.004931
 Fringe rate (Hz) 0.005024
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140441
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

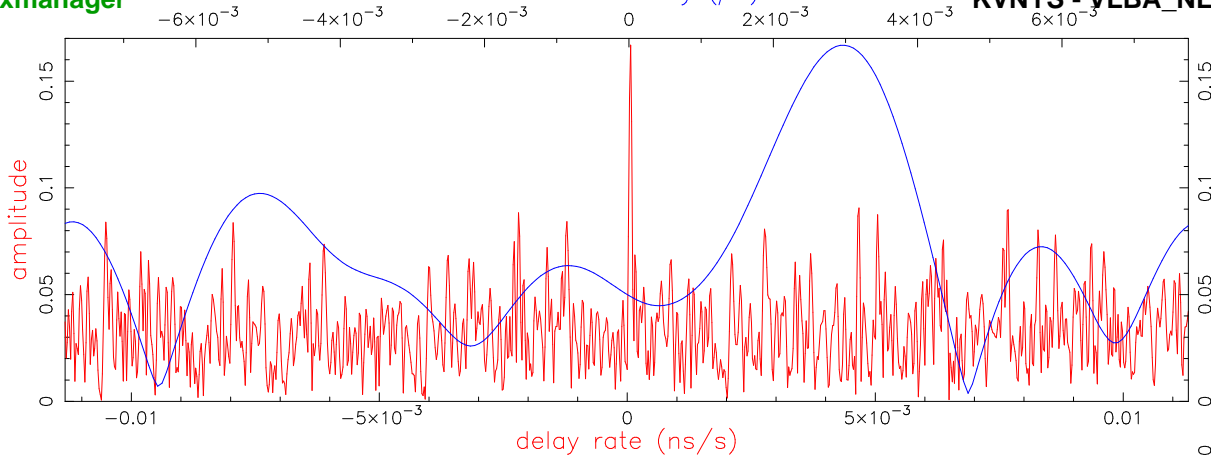
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



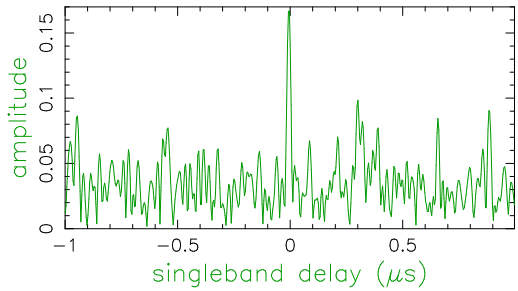
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-15.4	57.7	98.3	69.5	37.7	12.0	44.5	-179.9		46.2	
	0.3	0.4	0.3	0.4	0.2	0.4	0.4	0.1		0.3	
	259.2	258.0	257.9	257.1	94.2	257.8	258.0	310.5		257.7	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
										Chan ids	
										Tracks	
Group delay (usec)(sbd)	-1.40100158620E+03					-1.40099665538E+03			Resid mbdelay (usec)	-4.93082E-03	+/- 1.1E-04
Sband delay (usec)	-1.40099377413E+03					1.1062040E+00			Resid sbdelay (usec)	2.88125E-03	+/- 8.9E-04
Phase delay (usec)	-1.40099665389E+03					-4.0000002E-07			Resid phdelay (usec)	1.48930E-06	+/- 3.8E-07
Delay rate (us/s)	1.17822849832E+00					1.17822844000E+00			Resid rate (us/s)	5.83256E-08	+/- 3.7E-09
Total phase (deg)			-275.9			2.01801258514E-06			Resid phase (deg)	46.2	+/- 11.8

ph/seg (deg) 43.0 27.7 Search (1024X32) 0.256 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.4 48.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 66.3 16.7 Inc. seg. avg. 0.308 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 53.0 29.2 Inc. frq. avg. 0.322 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 y: az 40.6 el 39.8 pa -81.3 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -12916.859 54.410 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn.W.362.1HROB9

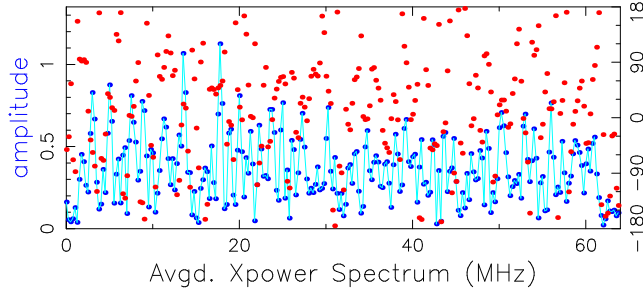
multiband delay (μ s)



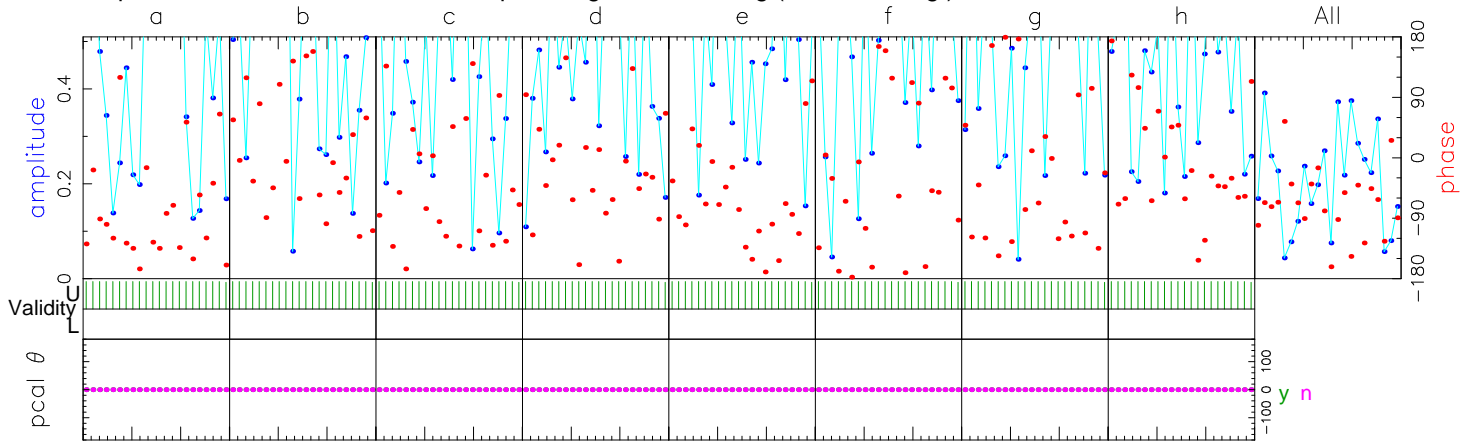
Fringe quality 0
SNR 6.2
Int time 179.979
Amp 0.170
Phase -75.0
PFD 5.8e-02
Delays (us)
SBD -0.005777
MBD 0.002973
Fringe rate (Hz) 0.005717
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140442
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-94.7	-9.0	-76.6	-43.3	-83.2	-163.6	-104.5	-28.5	Phase	-75.0
	0.3	0.1	0.2	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	257.3	147.0	301.8	242.1	255.1	22.7	235.8	118.4	Sbd box	255.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-1.40100930751E+03	Apriori delay (usec)	-1.40099665538E+03	Resid mbdelay (usec)	2.97287E-03	+/-	1.7E-04
Sband delay (usec)	-1.40100243263E+03	Apriori clock (usec)	1.1062040E+00	Resid sbdelay (usec)	-5.77725E-03	+/-	1.4E-03
Phase delay (usec)	-1.40099665780E+03	Apriori clockrate (us/s)	-4.0000002E-07	Resid phdelay (usec)	-2.41807E-06	+/-	5.9E-07
Delay rate (us/s)	1.17822850637E+00	Apriori rate (us/s)	1.17822844000E+00	Resid rate (us/s)	6.63678E-08	+/-	5.7E-09
Total phase (deg)	-37.0	Apriori accel (us/s/s)	2.01801258514E-06	Resid phase (deg)	-75.0	+/-	18.4

ph/seg (deg)	50.1	Theor.	43.1	Amplitude	0.170 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	65.1		75.2	Search (1024X32)	0.167	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	52.8		26.0	Inc. seg. avg.	0.162	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	40.9		45.3	Inc. frq. avg.	0.194	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
						Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

y: az 40.6 el 39.8 pa -81.3 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -12916.859 54.410 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn.W.377.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

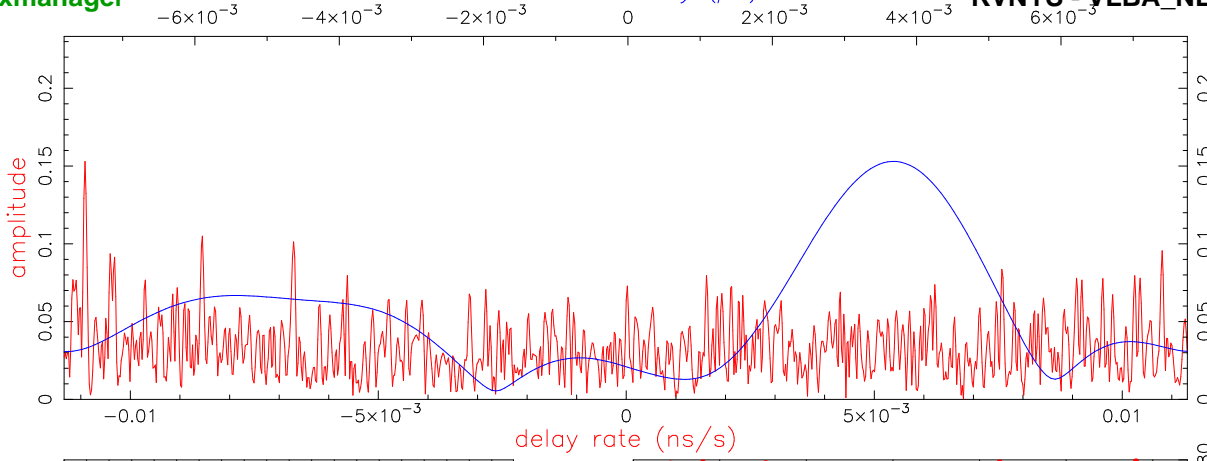
fxmanager

0102+584.1HROB9, No0122, yn

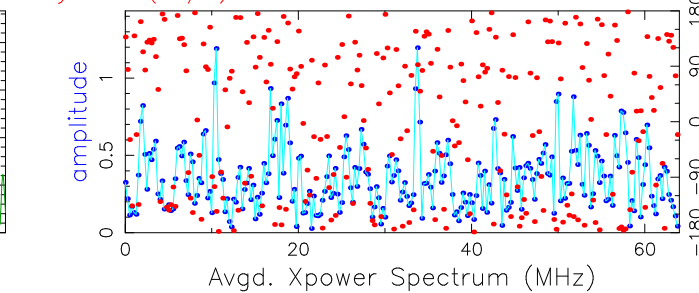
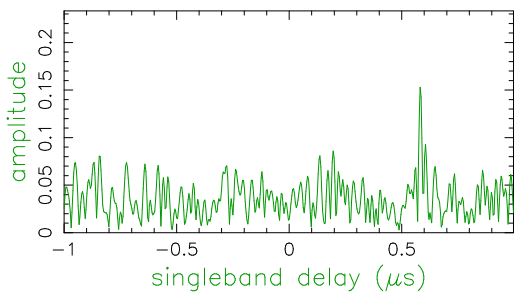
KVNYS - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

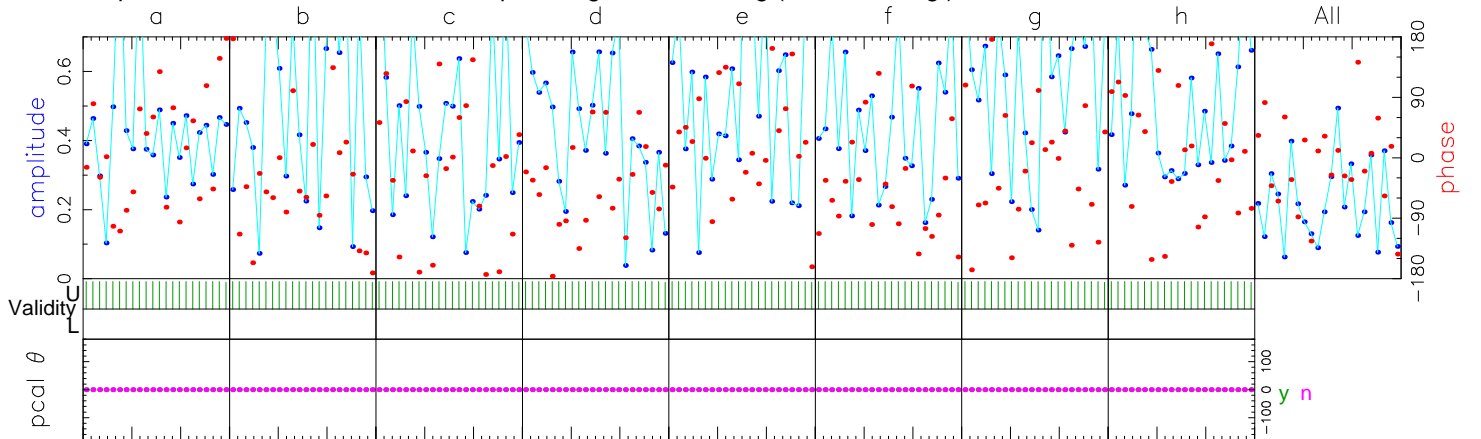


SNR 5.6
 Int time 179.979
 Amp 0.233
 Phase -16.9
 PFD 8.6e-01
 Delays (us)
 SBD 0.582910
 MBD 0.003698
 Fringe rate (Hz)
 -0.940800
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140444
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	7.4	-40.2	27.3	-36.5	13.4	-64.5	-19.9	12.6	Phase	-16.9
	0.1	0.2	0.2	0.4	0.4	0.3	0.3	0.2	Ampl.	0.2
	503.6	511.0	314.6	220.1	346.2	396.2	329.3	477.6	Sbd box	406.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.40041483248E+03		Apriori delay (usec)		-1.40099665538E+03		Resid mbdelay (usec)		3.69790E-03	+/- 1.9E-04
Sband delay (usec)	-1.40041374563E+03		Apriori clock (usec)		1.1062040E+07		Resid sbdelay (usec)		5.82910E-01	+/- 1.5E-03
Phase delay (usec)	-1.40099665593E+03		Apriori clockrate (us/s)		-4.0000002E-07		Resid phdelay (usec)		-5.44443E-07	+/- 6.5E-07
Delay rate (us/s)	1.17821751825E+00		Apriori rate (us/s)		1.17822844000E+00		Resid rate (us/s)		-1.09218E-05	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		2.01801258514E-06		Resid phase (deg)		-16.9	+/- 20.3

	RMS	Theor.	Amplitude	0.233 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	65.4	47.6	Search (1024X32)	0.150	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	86.0	83.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	35.4	28.7	Inc. seg. avg.	0.249	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	43.2	50.1	Inc. frq. avg.	0.240	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

y: az 40.6 el 39.8 pa -81.3 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -12916.859 54.410 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/yn.W.395.1HROB9

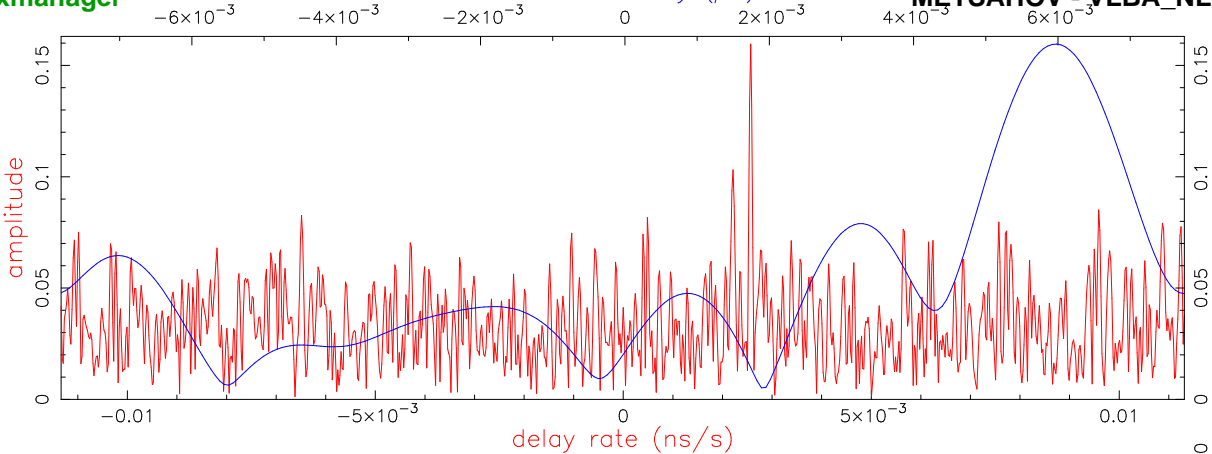
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, Zn

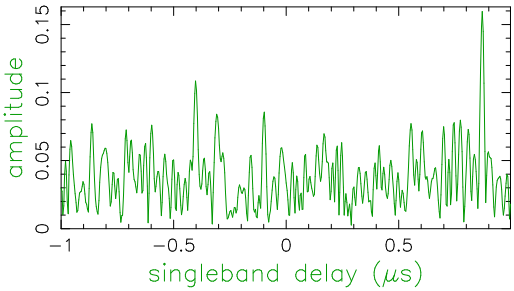
MEṬSAHOV - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

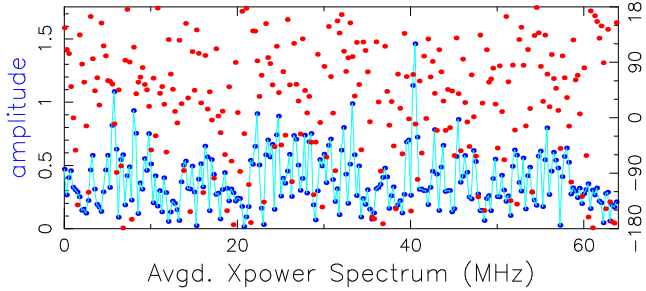


Fringe quality 0

SNR 5.9
 Int time 179.693
 Amp 0.163
 Phase -51.3
 PFD 4.6e-01
 Delays (us)
 SBD 0.870915
 MBD 0.005972
 Fringe rate (Hz) 0.220811
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

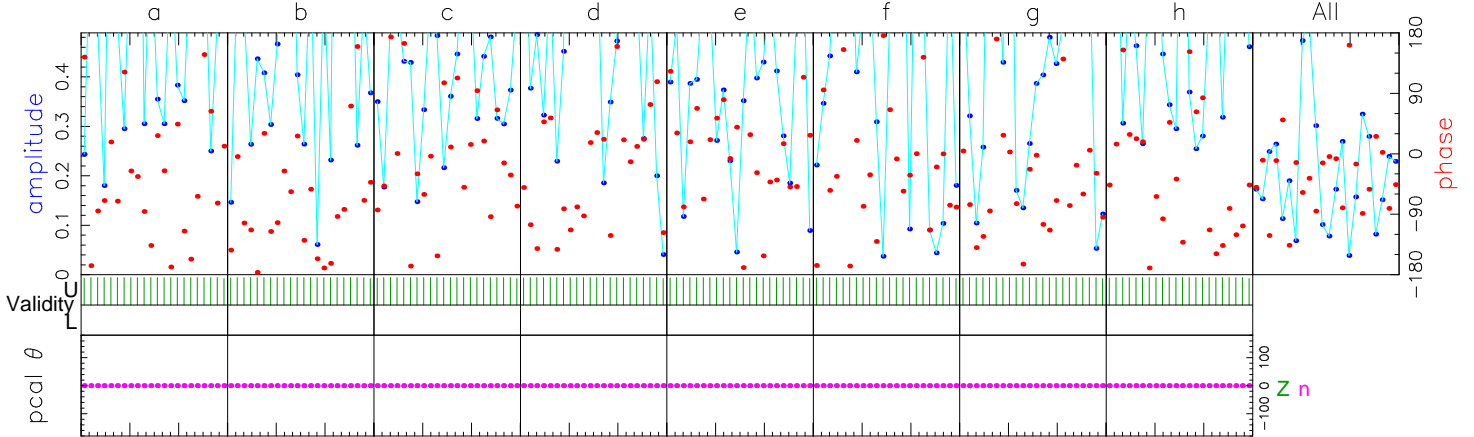


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140441
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.85879249615E+03	Apriori delay (usec)	-4.85965784272E+03	Resid mbdelay (usec)	5.97157E-03	+/-	1.9E-04
Sband delay (usec)	-4.85878692822E+03	Apriori clock (usec)	1.3155937E-02	Resid sbdelay (usec)	8.70915E-01	+/-	1.5E-03
Phase delay (usec)	-4.85965784437E+03	Apriori clockrate (us/s)	-4.8399999E-07	Resid phdelay (usec)	-1.65302E-06	+/-	6.3E-07
Delay rate (us/s)	5.97708359893E-01	Apriori rate (us/s)	5.97705796496E-01	Resid rate (us/s)	2.56340E-06	+/-	6.1E-09
Total phase (deg)	-257.2	Apriori accel (us/s/s)	4.52897146910E-05	Resid phase (deg)	-51.3	+/-	19.6

ph/seg (deg)	56.2	Theor.	45.9	Amplitude	0.163 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	82.0	Search (1024X32)	0.155	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	32.7	Inc. seg. avg.	0.163	Inc. frq. avg.	0.164	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	28.3	Inc. frq. avg.	0.164			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 2.6 el 28.8 pa -2.4 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -6517.473 6771.808 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn.W.366.1HROB9

Mk4/DiFX fourfit 3.21 rev 2937

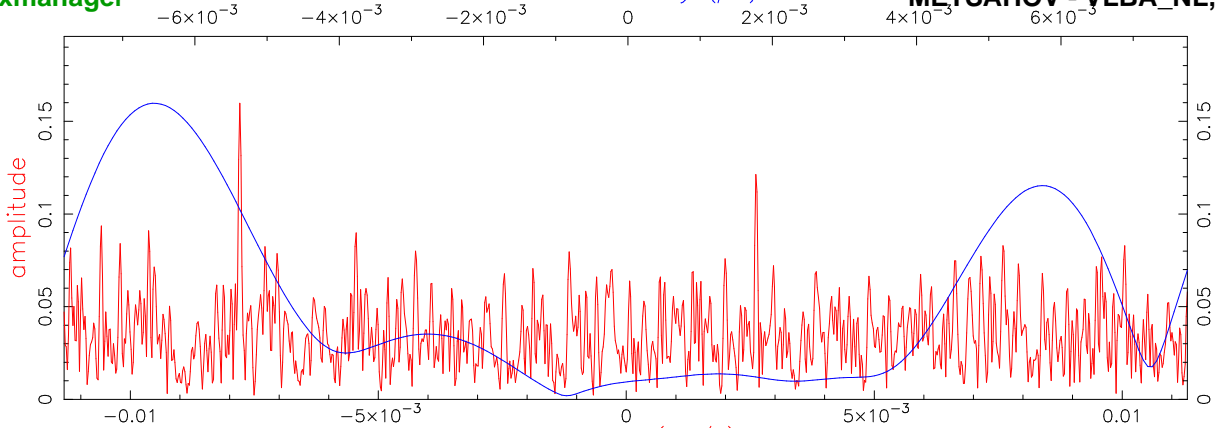
fxmanager

0102+584.1HROB9, No0122, Zn

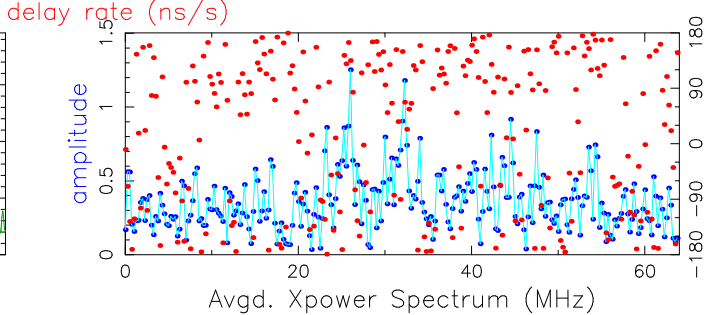
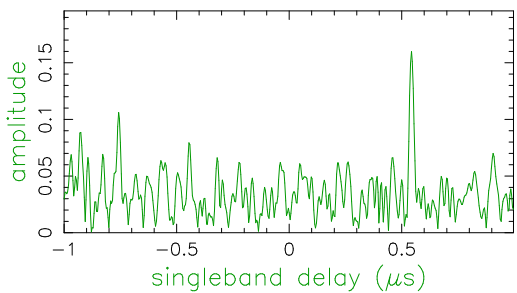
METSAHOV - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

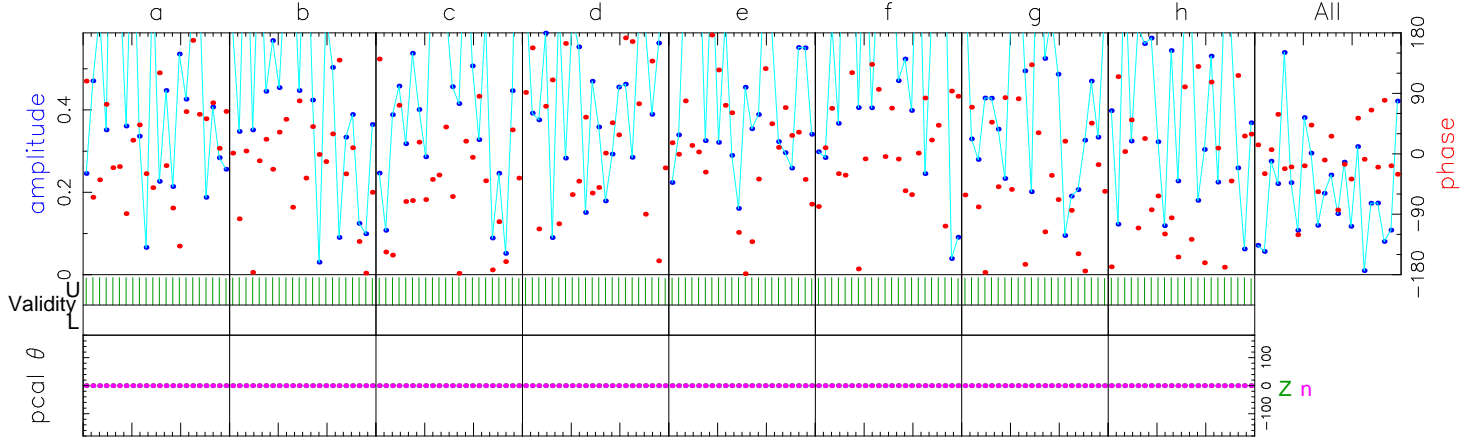


SNR 5.9
Int time 179.693
Amp 0.196
Phase -3.5
PFD 4.5e-01
Delays (us)
SBD 0.543060
MBD -0.006562
Fringe rate (Hz)
-0.672970
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140443
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-4.85911752975E+03	Apriori delay (usec)	-4.85965784272E+03	Resid mbdelay (usec)	-6.56203E-03	+/-	1.9E-04
Sband delay (usec)	-4.85911478297E+03	Apriori clock (usec)	1.3155937E-02	Resid sbdelay (usec)	5.43060E-01	+/-	1.5E-03
Phase delay (usec)	-4.85965784283E+03	Apriori clockrate (us/s)	-4.8399999E-07	Resid phdelay (usec)	-1.12292E-07	+/-	6.3E-07
Delay rate (us/s)	5.97697983982E-01	Apriori rate (us/s)	5.97705796496E-01	Resid rate (us/s)	-7.81251E-06	+/-	6.1E-09
Total phase (deg)	-209.4	Apriori accel (us/s/s)	4.52897146910E-05	Resid phase (deg)	-3.5	+/-	19.6

ph/seg (deg)	47.2	Theor.	45.9	Amplitude	0.196 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	84.5	Search (1024X32)	0.158	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	45.2	Inc. seg. avg.	0.192	Inc. frq. avg.	0.194	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	58.3	Inc. frq. avg.	0.194			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
Z: az 2.6 el 28.8 pa -2.4		n: az 316.3 el 45.3 pa 80.8		u,v (fr/asec)	-6517.473 6771.808	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn.W.381.1HROB9 simultaneous interpolator

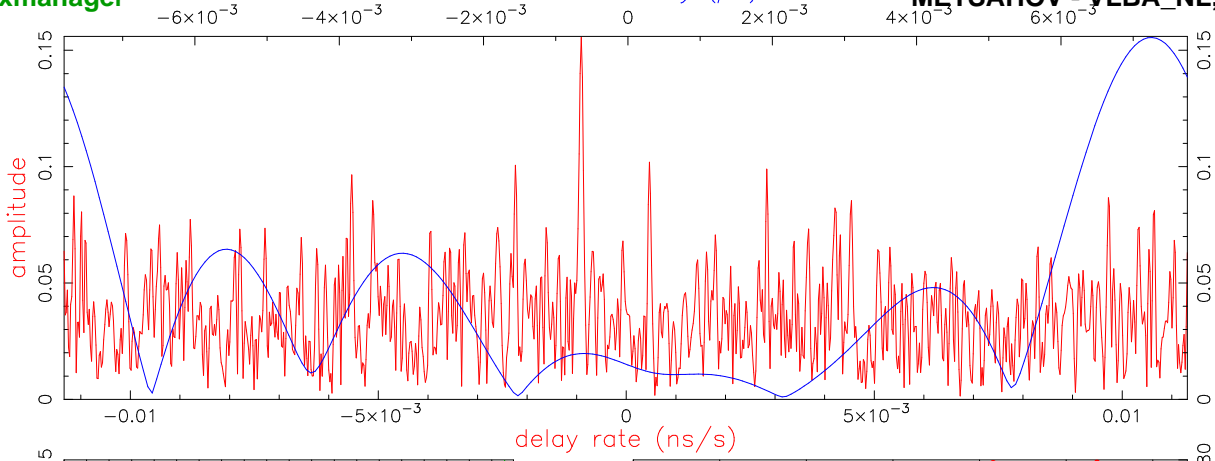
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, Zn

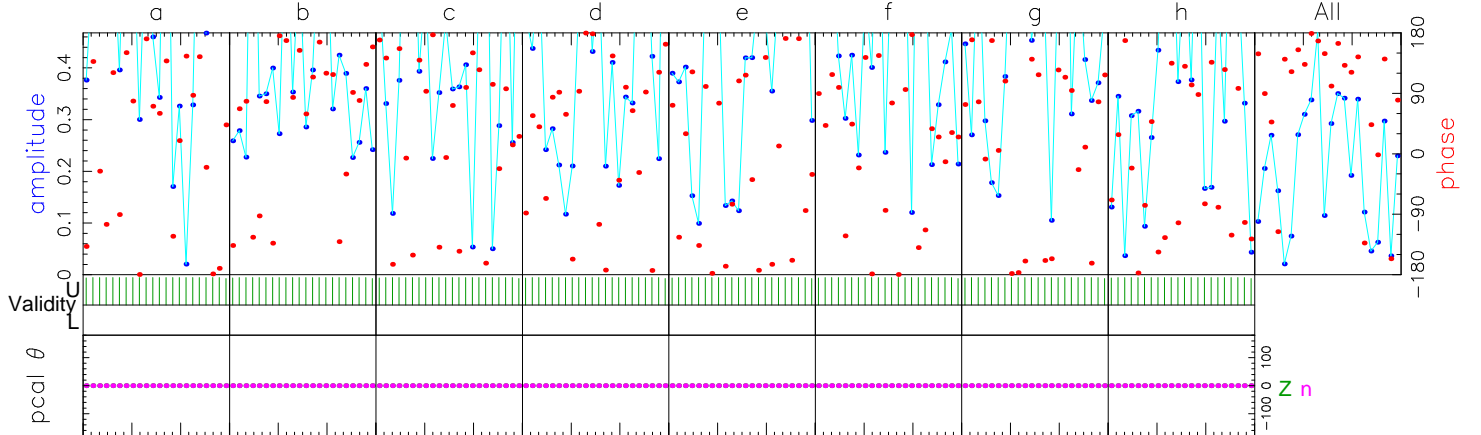
MEṬSAHOV - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)



Fringe quality 0
 SNR 5.7
 Int time 179.693
 Amp 0.156
 Phase 139.3
 PFD 7.7e-01
 Delays (us)
 SBD 0.957219
 MBD 0.007255
 Fringe rate (Hz)
 -0.078783
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 103000.00
 Stop 103300.22
 FRT 103130.00
 Corr/FF/build
 2021:006:220611
 2021:010:140444
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.85869746254E+03								7.25518E-03	+/- 1.9E-04
Sband delay (usec)	-4.85870062397E+03								9.57219E-01	+/- 1.5E-03
Phase delay (usec)	-4.85965783823E+03								4.49224E-06	+/- 6.5E-07
Delay rate (us/s)	5.97704881907E-01								-9.14589E-07	+/- 6.2E-09
Total phase (deg)			-66.6						139.3	+/- 20.1
ph/seg (deg)	57.3	47.1								
amp/seg (%)	87.1	82.3								
ph/frq (deg)	22.2	28.4								
amp/frq (%)	29.3	49.6								
Z: az 2.6 el 28.8 pa -2.4	n: az 316.3 el 45.3 pa 80.8		u,v (fr/asec) -6517.473 6771.808		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us) -1.000 1.000	
Control file: cf_1234_gmva	Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn..1HROB9		Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn.W.394.1HROB9		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us) -0.008 0.008	
						Sample rate(MISamp/s): 128			dr window (ns/s) -0.011 0.011	
						Data rate(Mb/s): 2048			ion window (TEC) 0.00 0.00	
									nlags: 256 t_cohere infinite	
									simultaneous interpolator	

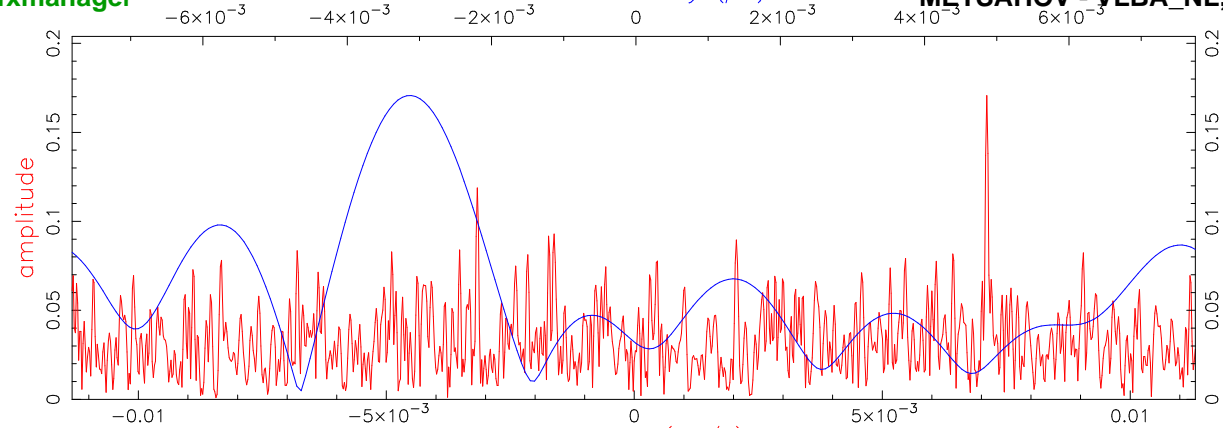
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HROB9, No0122, Zn

MEṬSAHOV - VLBA_NL, fgroup W, pol RL

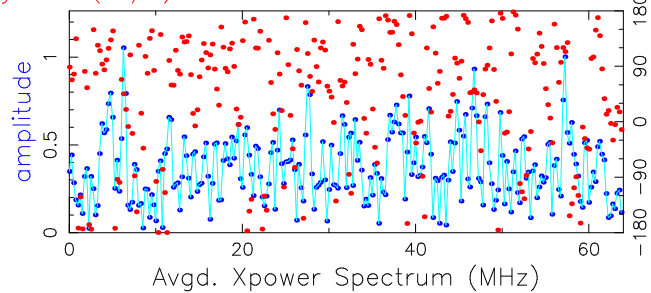
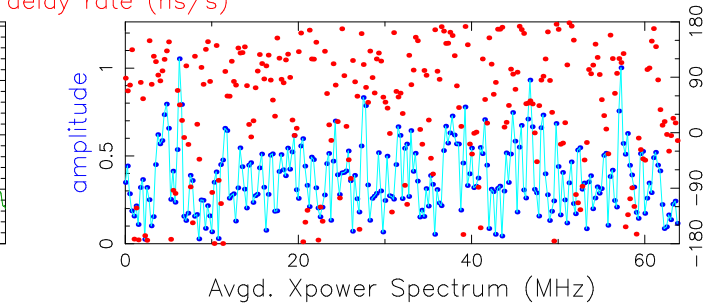
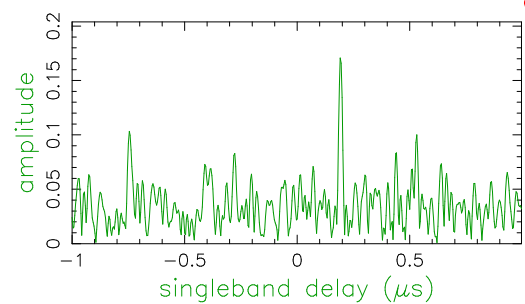
multiband delay (μ s)



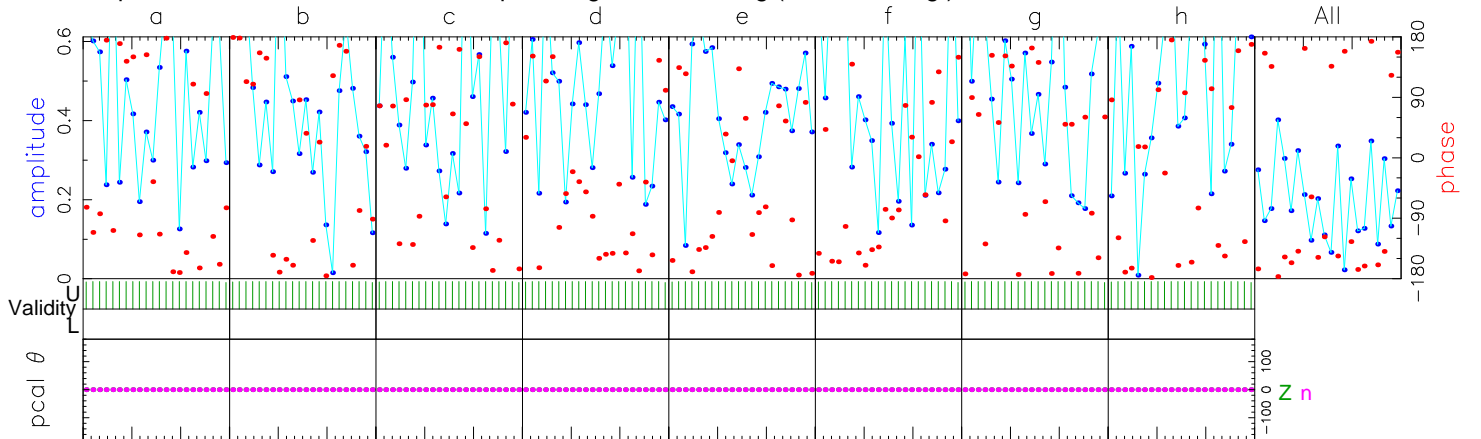
Fringe quality 0

SNR 6.3
Int time 179.693
Amp 0.204
Phase -164.8
PFD 3.5e-02
Delays (us)
SBD 0.192732
MBD -0.003111
Fringe rate (Hz) 0.612968
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 103000.00
Stop 103300.22
FRT 103130.00
Corr/FF/build
2021:006:220611
2021:010:140446
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-143.0	168.3	135.8	-142.7	-156.6	-117.3	171.5	-165.7	Phase	-164.8
	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.3	Ampl.	0.2
	307.6	306.7	45.1	94.2	341.3	274.4	11.6	306.5	Sbd box	306.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.85945782916E+03		Apriori delay (usec)		-4.85965784272E+03		Resid mbdelay (usec)		-3.11144E-03	+/- 1.7E-04
Sband delay (usec)	-4.85946511072E+03		Apriori clock (usec)		1.3155937E-02		Resid sbdelay (usec)		1.92732E-01	+/- 1.4E-03
Phase delay (usec)	-4.85965784804E+03		Apriori clockrate (us/s)		-4.8399999E-07		Resid phdelay (usec)		-5.31523E-06	+/- 5.8E-07
Delay rate (us/s)	5.97712912449E-01		Apriori rate (us/s)		5.97705796496E-01		Resid rate (us/s)		7.11595E-06	+/- 5.6E-09
Total phase (deg)			Apriori accel (us/s/s)		4.52897146910E-05		Resid phase (deg)		-164.8	+/- 18.1

ph/seg (deg) 40.4 42.5 Search (1024X32) 0.164 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.5 74.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.7 25.6 Inc. seg. avg. 0.187 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.7 44.7 Inc. frq. avg. 0.205 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 2.6 el 28.8 pa -2.4 n: az 316.3 el 45.3 pa 80.8 u,v (fr/asec) -6517.473 6771.808 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn..1HROB9 Output file: /Exps/c202a/v1/v1_3mm/1234/No0122/Zn.W.405.1HROB9